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ABSTRACT

Presented are five papers given at a 1970 seminar on reading difficulty and the intelligent underachiever. In the first paper, Dr. T. D. Hagger discusses the concept of specific learning disabilities and stresses the trend to search for causation in organic factors within the child, the importance of early identification, and the need for providing adequate remedial instruction. F. N. Cox's paper focuses on psychological assessment for remedial teaching and concludes that assessment should identify learning needs and be periodically repeated. The consequences on initial failure in learning to read is the topic of the third paper by Hugh Esson who examines the characteristics of the adult illiterate such as high scores on performance aspects of intelligence tests. The next paper is by Angela Ridsdale and is on identification and intervention in the early stages of learning difficulties with emphasis on symptoms such as hyperactivity which the potentially learning disabled young child may exhibit. The final paper, by J. P. Phillips, on remediation programs for retarded readers, provides information on diagnosis and developing a program based on the child's individual needs and interests. (DB)

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REPORT OF PROCEEDINGS

of a

SEMINAR FOR TEACHERS

convened by

THE SPECIFIC LEARNING DIFFICULTIES ASSOCIATION, VIC.

READING DIFFICULTY AND THE INTELLIGENT UNDER-ACHIEVER.

Held at Melbourne Teachers' College and the University of Melbourne during 1970.

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THE CONCEPT OF SPECIFIC LEARNING DIFFICULTIES.

T. D. Hagger.

As I am a public servant I must ask you please not to blame the School Medical Service - nor for that matter, SPELD - for anything I say today. I am speaking as a private individual interested in children with learning problems.

I feel honored, as a member of the medical profession, to be taking part in this seminar. The subject of "Reading Difficulty and the Intelligent Under-achiever" has a number of medical aspects, but, of course, is primarily an educational problem. I hope you will accept me as one of yourselves for the occasion. Actually I commenced my university studies as a student teacher, intending to teach science, but being a renegade I deserted after the first year.

I'll be putting before you a point of view with which some educationalists disagree. I do take comfort in the thought that the number who agree with me appears to be increasing, but the real test is whether this point of view stands up to reasoned argument in the light of your experience and observation. All that I ask is that you should try to judge this point of view on its merits rather than on its popularity or on the particular profession to which I belong. I would like us to be able to forget professional fences today, and to concentrate on our common interest - the intelligent, frustrated, under-achieving child. The part of the subject I am to speak about - "The Concept of Learning Difficulties" - is a comparatively new one to most of us, but I think we all have to take an interest in it because it's implications are so important.

Soon after I joined the School Medical Service I was struck by two things. The first one really did amaze me. That was the large number of children in Grade 5 (at that time we were doing a routine examination of children in Grade 5) who could not read beyond about Grade 1 level. I had never realised this before, even though I'd spent most of my professional life dealing with children. The other phenomenon which stood out was the large number of children who were referred to school medical officers by teachers for disturbances of behaviour, who were also failing badly in their academic work, particularly in reading. At that time I tended to regard the behaviour disturbance as being the cause of the learning difficulty. That was because of my own professional upbringing and I'll come back to that point later.

These observations were just my personal impressions of course. What we want are some facts. Well, here is one. A recent investigation found that 14% of children entering Form I in Victorian High and Technical Schools are reading at Grade III level or lower. That means they are doomed to failure in their secondary schooling by reason of their poor reading alone. That figure accords

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reading difficulties sufficiently severe to "impair seriously their ultimate usefulness and adaptability to a modern society" unless something is done to provide them with proper remedial teaching. So we and the United States are alike in failing to teach reading to hundreds of thousands, or in their case millions, of intelligent children in each generation, while at the same time we insist increasingly that reading should be a pre-requisite to skilled employment.

Well, that is our first fact, and it's rather a staggering one - 14% of our children capable of learning to read, and yet not doing so.

Here is a second fact. We have a consultant psychiatrist in the School Medical Service, who sees children referred by school medical officers, and sometimes from other sources. These children come with all kinds of psychiatric and behavioural disturbance - anything from petty stealing and school refusal to schizophrenia and other serious mental problems. This psychiatrist recently reviewed the last 100 new cases referred to her and concluded that the main cause of the disturbed behaviour in no less than 53 was the experience of academic failure due to specific learning difficulties. When Professor Clements was here last March he told us that the corresponding figure in his Child Study Centre in Arkansas was 70%. Those of you who heard him may have thought, as I did, that his Centre probably had a reputation for dealing with this sort of problem and that may have loaded the figures. So I thought you would be interested in the figure for Victoria. Of course, that figure is based on a personal judgment - it has to be. The fact is simply that that is the personal judgment of somebody well qualified to judge - half the cases of disturbed behaviour in school children due primarily to specific learning difficulties.

Now a third fact. For a good many years people in various countries - United States, Denmark, France, Great Britain - have pointed to an illiteracy rate among delinquent boys, ranging between 70% and 100%, but until recently I had not come across any serious attempt to determine the causes of their illiteracy. How much of it might be due to mild mental retardation? How much to the home and social environment? And how much, if any, to specific reading disability? A recent preliminary report of a study by Tarnopol presents some interesting facts. He investigated 102 male delinquents in California, aged between 16 and 23. He found evidence that in a considerable number of cases, even at this late age, they still displayed evidence of neurological dysfunctions of the kind which characterise children with specific learning difficulties. For instance, only 33% of the delinquents (compared with about 85% of the normal population) had a normal result on the Bender-Gestalt test. These delinquent youths also showed significantly poor performance on a test of motor proficiency, and significantly higher scores on right than on left hemisphere sub-tests of the W.I.S.C. Are you familiar with that concept of right and left brain tests? I think it was Penfield and Roberts who first pointed out that 3 of the items in the Wechsler Intelligence Scale for Children are predominantly measuring the function of the left half of the brain. Information, arithmetic and digit span were the three they chose. Another

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higher score for left as with a higher score for right, because that's the way the test is standardised. But if any individual lacks that clear dominance of the left half of the brain which occurs in the great majority of people, that individual tends to score higher on the right hemisphere test than the left. In fact about 80% of children with specific learning difficulties do have a higher right hemisphere score and the same applies to a majority of these Californian delinquents.

So our Californian delinquents display, as a group, poor visuo-motor function, poor muscle co-ordination and disturbance of cerebral dominance - three of the most characteristic features, as we will see later, of children with specific learning difficulties. Now we all know that home background is an important factor in delinquency, but evidently it is not the only factor, and it seems that important dividends may be gained from a careful study of the delinquent youth himself. If the effects of specific reading disability on personality can be modified by proper remedial teaching, who knows how big a contribution this may make to the prevention of delinquency?

I think I have said enough to make clear my first point - that we are dealing with an important problem. 10% or more of our intelligent children are not learning to read, and from this group comes perhaps a majority of the cases of psychiatric disturbance among school children and possibly also of delinquency among male adolescents.

Now let us turn to the question of <u>why</u> such a high proportion of children with good intelligence don't learn to read. We are all familiar enough with the traditional list of reasons - social deprivation, emotional disturbance, poor teaching, unsuspected defects in vision or hearing, and so on.

I was brought up, and I expect most of you were too, to look primarily for an explanation of behavioural disturbance in children (including disturbance of learning behaviour) to psychodynamic interpretations of child-rearing practices or interpersonal relationships within the family. If children, though intelligent, showed little achievement in learning, we were taught to look for such factors as dependence on over-protective mothers, resentment against over-strict fathers, or repressed hostility towards brothers and sisters. Of course we nearly always <u>could</u> find <u>some</u> such factor (think of any normal family you know!) especially when we started with the ingrained belief that it should be there. So we thought how clever we were and how much psychological insight we had gained. If we were teachers we could comfort ourselves with the thought that this was a job for a psychiatrist. If we were psychiatrists, we perhaps would try to transfer to the parents some of our supposed insight into family relationships. The parents' indignant reactions could then be regarded as proof of the correctness of our assumptions. (Laughter) Assumptions! That is, of course, precisely what they were. What we didn't do, was to go back and study the child himself. In the past few years a significant and growing number of people

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This shift of emphasis has consequences which are proving little short of dramatic, in two respects. The first is the rapid build-up of understanding of the affected children. We can now identify and recognise organic factors within the child himself which give us clues to the real reasons for his ineffectual learning - reasons concerned with his genetic make-up, with deviations of his development, or with structural changes in his central nervous system from illness or injury.

The second dramatic consequence of the new concept concerns management. If the reasons for underachievement by intelligent children are related to differences in the mode of function of the central nervous system, then the teacher can hope that an understanding of the difference in mechanisms will provide clues also to effective methods of teaching. I believe there is good evidence that with the knowledge we already possess (but on which some of us haven't yet done our homework!) a great majority of our intelligent non-readers could be taught to read reasonably normally, and thus be permitted to achieve normally in life. It is in fact the lack, in Australia, of adequate administrative and financial provision to apply these new concepts for the benefit of our intelligent under-achievers, which has led to the formation of SPELD. The parents and a group of professional workers have become seized with the urgency of the situation, and felt that it was too important to be left to what I suppose will always be slow-moving departmental changes. We have seen the same thing happen earlier in relation to other groups of handicapped children - the spastic, the mentally retarded, the autistic and so on - and the same has happened with specific learning difficulties in the United States and Canada in the last ten years.

Actually, a few people like Samuel Orton, and Anna Gillingham who worked with him in the early 1930's and continued to teach and train teachers until her recent death, and Margaret Rawson who recently published a book on a thirty-year follow-up of children taught partly by the Gillingham methods - such people have been telling the world for over thirty years that these children can be taught successfully enough for them to become productive citizens in skilled trades and professions, and even on university staffs. But the world didn't listen.

The concept of specific learning difficulties as I see it, then, leads me to the opinion that a proportion of our intelligent under-achievers - a proportion which I believe to be a very substantial majority - are children who, if we but study them carefully enough, display certain characteristics by which they can be recognised as children with a neuro-physiological difference from the others - a difference that makes the current classroom method in some way unsuitable for them. In addition, although they may learn little by existing classroom procedures, they will respond well to skilled, patient, remedial teaching, based on an understanding of their individual weaknesses and strengths.

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good trying to convince you by saying that in my experience the concept of specific learning difficulty makes many things that previously puzzled me about these children seem to fall into place. So I would like to summarise some of my more formal reasons for this belief that specific learning difficulties are a major cause of intelligent under-achievement.

First there are the Scandinavian studies of Norrie, Hallgren, Hansen and Strömgren on inheritance of specific learning disabilities. Perhaps the most convincing part of this evidence comes from twin studies. In a combined total of 12 identical and 33 unlike pairs of twins they found 100% concordance in the former and 33% in the latter; that is, when the genes were identical, if one twin was dyslexic then the other was, always. When the twins were no more alike than ordinary brothers and sisters in their genetic make-up, when one twin was dyslexic the other was so in only 1/3 of cases. The other 2/3, although subjected to a very similar environment, learned normally.

Having quoted those figures for identical twins before, you can imagine my surprise when I received a letter from a country doctor two or three months ago, asking if I would see a girl - one of a pair of identical twins - who appeared to be dyslexic. I saw them both, and it was clear that while one had a severe specific learning difficulty the other was quite clearly affected, though to a milder degree. The reason for the difference was also apparent. The severely affected one had been in a quite precarious state at birth. She weighed little more than 1 kilogram, compared with her sister's 3; she was exposed to brain damage from anoxia and she had had several convulsions. They are both highly intelligent girls, and the one without the extra handicap of brain damage was finding her way around her perceptual problems with the help of good classroom teaching. The other, with the same teaching, was failing badly.

That brings me to the second argument for organic causation of most reading difficulties, and also to an interesting sidelight on a study by the Czech authority on specific learning difficulties, Matejcek. This second argument concerns the effects of minor brain damage. Kawi and Pasamanick, in the United States, took a group of boys with normal I.Q. and severe reading problems, and found that these boys had been subjected to a much higher incidence than normal of events near the time of birth which would be likely to produce minor brain damage. I'm not suggesting that all specific learning difficulties are due to brain damage - only that some appear to be so caused. But if such disabilities can be caused by damage to certain nerve cells, then it seems likely that imperfect or delayed development of those same nerve cells can cause similar effects on learning behaviour.

Now this is where Matejcek comes in. Although the frequency of minor brain damage as an antecedent to reading failure has been well known for the last fifteen years, it has not been altogether clear why brain damage should affect some, but only some, children in this particular way. Matejcek produced evidence that there is genetic predisposition which makes some particular aspect of brain

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with her sister the inherited predisposition to specific learning difficulty and not to epilepsy. Following her brain damage, though there were some early fits, the real and lasting disability was the one to which she had the genetic predisposition, namely specific learning difficulty, or developmental dyslexia.

Could we have the first slide? I'd like to return to the main argument. This is a slide of a graph that was published in the journal Pediatrics in 1962 by Wiener. It shows the sort of way in which minor brain damage does affect function in children. One of the causes of minor brain damage is prematurity at birth and a statistical index of prematurity is birth weight. Along its horizontal axis, this chart plots birth weight and you'll see that there are three points chosen, representing on the left, children of normal birth weight; in the middle, children who are moderately premature; and on the right, those who are severely premature. You will see that IQ and socio-economic status are quite well matched in the three groups. The bottom line on this graph represents an index of brain damage. It shows that these babies are subjected to more brain damage as they become more premature. And the other one shows the effect on the Bender-Gestalt test done at 7 years of age, and you will see how that runs more or less parallel with brain damage, whereas IQ remains constant for the three groups of babies. These were tested at the age of 7 to show the eventual effects of minor brain damage at birth. While that slide is there I would like to point out something else. It emphasises the fact that with advances in medicine producing a higher salvage rate among babies from complicated pregnancies, we can expect a continuing increase in numbers of children with specific learning difficulties. Our 14% may in fact be going up.

The third main argument, to my mind, for thinking that poor reading achievement in intelligent children is usually due to organic factors, is this. If you take a group of intelligent children with reading difficulty, a high proportion of them will be found to display some of the so-called "associated features" of specific learning difficulty. I will mention these in more detail later, but I mean such things as lack of awareness of spatial relations and disturbance of lateral cerebral dominance. I find it hard to believe that emotional factors can make a child left handed or cause him to be generally confused about spatial relations or otherwise interfere with the dominance of one cerebral hemisphere over the other.

The fourth and last argument I want to advance in favour of specific learning difficulty being responsible for most cases of under-achievement in intelligent children, concerns the results of remedial teaching. The main source of disagreement on this point is, of course, whether emotional factors are primarily the cause or the result of the difficulty in learning. I think it is of some significance in favour of the learning difficulty being the primary factor, to find, as I do, that the effects on the children's behaviour of good remedial teaching are in general superior to those of good psychotherapy. Psychotherapy can't be expected to be very effective, after all, if the cause of the disturbed behaviour is an untreated learning disability. Only 2 of the 20 boys in Margaret Rawson's language

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number of parents, and I would like to quote from a few of the replies, which were simply answering the question:- "Please comment on any change you have noticed in behaviour". The first is an eight-year-old boy who had special help from an Infant Mistress for the past eighteen months. His mother said, "You wouldn't believe the difference. He is a much more confident child who is enthusiastic about school now and very interested in his schoolwork. Finding that he can keep up with his classmates has made all the difference. He joins in all class activities now. He looks and is a much brighter, happier and more confident child than he was".

A ten year old boy whose behaviour in the playground, in the classroom and in the home had previously caused a good deal of disturbance. After twelve months' private remedial teaching his mother reports:- "Since his extra lessons, which necessitated my working full time, he has become a new boy, more obedient, participating more in family life".

A girl of fourteen who had become withdrawn and unhappy. She has had eighteen months of remedial teaching at the rate of half an hour per week: "There is a marked improvement in all ways. Social relationships show outstanding improvement".

A boy of sixteen from a Technical School. He was referred to me by a general practitioner after inadequate response to tranquillisers for his behavioural problem. He has had private remedial teaching for one hour weekly since October of last year (9 months): "The periods of aggression and frustration that occurred prior to the remedial lessons have now nearly vanished" says his mother.

These quotations of course don't mean much because I have selected them, but they do illustrate my own impressions that remedial teaching improves the behaviour of these frustrated children so much better than does psychotherapy directed at the family relationships.

Let me sum up the reasons I've given for believing that so many reading failures among intelligent children are due to the organic determinants of specific learning difficulty. They are:-

1. Twin studies, showing a strong genetic factor.
2. Frequent presence of minor brain damage, which of course can't be caused by the child's emotional state.
3. The very common presence of associated features, such as a high incidence of left handedness, for which emotional causes seem a very far-fetched explanation.
4. Remedial teaching is more effective than psychotherapy in modifying these children's disturbed behaviour.

Don't get me wrong. I don't mean to suggest that family and environment don't matter, but merely that more often than not, I consider familial and other environmental problems are secondary, or else are aggravating, rather than

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I would like to read you a few lines from an article by Kurlander and Colodny, two Californian psychiatrists. I think that they put the specific learning difficulty concept more clearly than I can, and they can speak with more authority. One is a Professor of Psychiatry

and Director of a Child Guidance Clinic, the other a Mental Hygiene Department psychiatrist working at the same Clinic. Both, incidentally, are qualified psycho-analysts, but they have changed their methods of treatment with increasing experience: "Those oriented to psychological thought have been taught a code of meaning and motive to apply, a bit uncritically, to certain kinds of behavior. For instance, hyperactivity means 'flight from relationships'; hypoactivity, 'withdrawal into fantasy'; destructiveness, 'hostility'; failure to read, 'block against learning'. But there are alternatives which to many of us sometimes appear more likely. Hyperactivity may simply express immaturity of the nervous system; hypoactivity may be a lack of motor and interpersonal skills; destructiveness may be a random combination of hyperactivity, poor motor skills and poor judgment. Failure to read is often either developmental delay or some degree of dyslexia". And a little later, "Our old technique focused on changing motives and assumed that if the heart were pure, the mind would know how to think...It is not his motives but his machinery which does not work. He needs less to be inspired than to be instructed".

I would like now to summarise the concept of specific learning difficulty as I've described it thus far. This concept places emphasis in the search for causation of under-achievement in intelligent children, on organic factors within the child rather than on emotional factors produced by his environment, and it particularly demands a study of those individual characteristics of the child which have relevance to his learning style and capacity. It recognises and develops the simple statement "children are different in the ways in which they learn", and it claims that the most important single part of the management of these children is skilled remedial teaching.

Now I would like to look at what are the characteristics of the child with a specific reading disability. Suppose you are a classroom teacher and have a child in your class who seems bright enough, but is not making reading progress. What observations will help you to decide whether this is because of a specific learning difficulty or because he really is just too frightened or worried to be able to learn, or perhaps because his home conditions put a premium on illiteracy?

Perhaps I should start a little further back and ask what is the meaning of the term specific learning difficulty or specific reading difficulty. When we say a child has a <u>specific</u> difficulty or specific disability, we simply mean that it is not a general one. He is not an under-achiever in all or most areas of learning, that is he is not mentally retarded. Such a child may, for instance, be a good listener, a good thinker and a good talker with an excellent vocabulary, yet be quite unable to recognise or remember a printed or written word as the symbol for a spoken word that he knows quite well. He may be <u>unable</u> to appreciate any difference between words like "who" and "how", just as you might claim that all Tibetans look the same.

That definition of specific learning difficulty already gives us two characteristics of these children - normal intelligence and a specific or localised problem. Thirdly, we could go through a list of the typical errors made by children who have a specific reading difficulty. Here it is important

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That definition of specific learning difficulty already gives us two characteristics of these children - normal intelligence and a specific or localised problem. Thirdly, we could go through a list of the typical errors made by children who have a specific reading difficulty. Here it is important to remember that the errors are unlikely to be confined to reading if, as I am claiming, the unit defect is a neurological not an academic one. For instance, if you see such a child for the first time in a Secondary school, the most obvious departure from normal may well be either in spelling or in reading comprehension. On the other hand, in Grade I it is

quite likely that his writing or drawing will be the first thing to alert you to the fact that there is something wrong. The commoner defects in reading itself are made most obvious by asking the child to read aloud, though of course it is unnecessarily cruel to ask a dyslexic child to read aloud in public. To save time I won't describe those typical errors, but we'll have a quick look at a series of slides that illustrate the sort of errors with which I am sure you are all familiar. Just bear in mind that it is the frequency and persistence of these that distinguish the child with specific learning difficulty from the others. The first slide is from a Grade 2 child, showing some of the typical errors - mistaking one letter for another and so on. Next.

This is a boy in Grade 5 who couldn't read and those are his attempts to write from dictation. I think it's evident from what he has written that one of his problems was in auditory discrimination. You'll see the words "first strple" which is supposed to be "were startled". He has run them together. Typically, he starts off better than he finishes (like most children) but the point is that he was getting behind and in trying to hurry up made more mistakes. The next slide shows the first couple of lines not as dictated but as transcribed from the board. He managed to do two lines while the rest of the Grade did the whole passage, and he said that was all he could do in the time. Next slide.

This picture illustrates some of the difficulties about spatial relations and body image. These next three slides are all done by children about 11½ years old. The green one is done in textacolor - a difficult medium for detail. You can see from the position of the shoulders that this girl's concept of body image is a bit strange. The next one, by a boy, shows arms coming from the hips. The next was an attempt to copy a couple of diagrams. I did the ones on top, and this 11 year old child should have been able to do better than that if he had normal visual perception and visuo-motor co-ordination.

With reference to spatial relations and body image, I would like to illustrate here on the board another point about brain damage. This is a diagram of the human brain from the left side and the shaded area is the main area concerned with language, which is pretty well confined to the left half of the brain. Some people claim that it's those areas of brain with particular arterial supplies which are most subject to damage in a general state of oxygen deprivation, which is one of the common causes of minor brain damage at birth. The margin of such an area is shown roughly by where I've drawn those two parallel lines, which pass through this main area concerned with language function. The corresponding area on the right side of the brain, with a similar arterial supply, is concerned with the functions of spatial relationships and body image. So if it is true that the parts which have a less secure, an inferior, supply of blood, are particularly prone to damage by anoxia, then it is to be expected that such a cause of language disability will be associated with uncertainty about spatial relationships and so on.

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So we now have three things that would suggest that a child may have a specific reading disability.

1. Normal intelligence.
2. Irregular attainment.
3. Typical errors in reading, writing or spelling.

What else can we look for? I made some reference earlier to associated features. A dozen or more of these have been described and they are intensely interesting from the point of view of causation of specific learning difficulties. They have little to do, superficially, with reading - rather is it that poor reading and these associated features are the common results of the underlying neurological peculiarity.

Instead of giving a long list of these associated features I made a little investigation of my own for the purpose of this Seminar. I listed the last 100 children I have personally examined and regarded as having specific learning difficulties, and then determined the frequency of each of the major associated features as recorded in my notes. From these I have picked out those features which are most frequent and which can be observed by the ordinary teacher, rather than ones which need sophisticated psychological or medical tests.

The next slide shows the results of this investigation. Notice that 59 of these 100 children showed evidence of weak cerebral dominance, and there were 28 left-hand writers. You can observe this just by watching their confusion and uncertainty in deciding what hand to use for various activities. You can discuss with the parents such things as the hands they use for toothbrush and comb and hammer. Table-setting is often a very revealing thing to enquire about. These children have difficulty in identifying right from left. Ask them to do things like put the right hand on the left ear and they get very confused. Of course, with all these things, if you are not doing a precise psychological test, you have to have a pretty clear idea of the normal. You need to repeatedly get normal children to do the same thing to keep your standards satisfactory. A very simple test is the Schilder test. Ask the child to stand with his eyes closed and to stretch his hands straight out in front. Most people, when they do that, hold the hand that is dominant higher than the other. It is claimed that if the hand with which the child writes is either level with or lower than the other, then he has a disturbance of cerebral dominance.

Fifty one of the 100 children had speech difficulties, the main point there being late development of speech. The standard I used was to ask whether, before the second birthday, the child had been able to use at least two words together, meaningfully. Otherwise the usual disorder is a severe dyslalia - the mispronunciation of a lot of sounds.

Fifty had the hyperkinetic syndrome; you are all familiar enough with that combination of over-activity and impulsivity and distractability. These children just can't stay still. Anything they see or hear attracts their attention and they have to pay attention to it.

Forty five had motor inco-ordination. It's usually divided into gross and fine, of course; you can observe them running around, throwing and catching balls and so on. A good test if you want to carry out a special one is to get them to walk along a straight line, making

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Forty five had motor inco-ordination. It's usually divided into gross and fine, of course; you can observe them running around, throwing and catching balls and so on. A good test if you want to carry out a special one is to get them to walk along a straight line, making heel touch toe with each step, and compare that with what the average child of the same age can do. They are inclined to overbalance. Fine motor co-ordination is demonstrated by things like doing up shoe laces or picking up small objects from the floor. A normal child of 7 can touch thumb to each finger twice in 5 seconds, and most of these

with poor fine motor co-ordination can't.

Forty three had problems of visual perception. I simply tested that by having them copy things like geometrical figures - circle, square, diamond, cube - again you must have your standards of normality clearly in mind. For visual memory I generally ask an older child to draw a plan of the room he sleeps in, and later I ask Mum to do the same. For a younger child you can draw some sort of geometric figure, get him to look at it for a while and a few seconds later ask him to reproduce it without being able to see it. A comparison between my figures and those of Spraings and Crowther shows mine to be smaller, no doubt because theirs was a much more careful investigation using standardised tests, and so they are able to say that some of the less obvious changes were in fact significant, whereas I would have to feel pretty sure that it was abnormal before I included it. Family history for instance, 35, whereas Spraings and Crowther found 58% with a family history of specific learning difficulty. The Scandinavians have produced much higher figures than that - Hansen 66% and Hallgren in Sweden, I think, 88%, and these were quite careful investigations into the reading disabilities of other members of the family. (Family here means simply brothers, sisters, mother and father). Of course a teacher would have to be pretty careful about inquiring into details of family history - parents are often very sensitive about their own disabilities. But at least you would quite often know about an older brother or sister, in the same school, who has also had such problems.

Our tenth slide illustrates differences between boys and girls.

ASSOCIATED FEATURES

Sex differences. n = 84 boys, 16 girls

Left Handedness

Boys 24%
Girls 50% Total 28% (27)

Possible Brain Damage

Boys 20%
Girls 44% Total 24% (31+)

Family History

Boys 37%
Girls 25% Total 35% (58)

None of these is statistically significant. According to my amateur arithmetic the odds are no more than about 18 to 1 that any of these is significant. But they are interesting and suggest that it might be worth investigating these with a larger series to establish whether or not they are significant. The sort of thing suggested by these figures is that perhaps in boys and girls there may be a difference in the type or in the causation of learning difficulties. For instance, boys might have more often the inherited problem, while girls might be more often due to brain damage and so on.

Now to summarise the way in which children with

of geometric figure, get him to look at it for a while and a few seconds later ask him to reproduce it without being able to see it. A comparison between my figures and those of Spraings and Crowther shows mine to be smaller, no doubt because theirs was a much more careful investigation using standardised tests, and so they are able to say that some of the less obvious changes were in fact significant, whereas I would have to feel pretty sure that it was abnormal before I included it. Family history for instance, 35, whereas Spraings and Crowther found 58% with a family history of specific learning difficulty. The Scandinavians have produced much higher figures than that - Hansen 66% and Hallgren in Sweden, I think, 88%, and these were quite careful investigations into the reading disabilities of other members of the family. (Family here means simply brothers, sisters, mother and father). Of course a teacher would have to be pretty careful about inquiring into details of family history - parents are often very sensitive about their own disabilities. But at least you would quite often know about an older brother or sister, in the same school, who has also had such problems.

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Now to summarise the way in which children with learning difficulties can be diagnosed by anyone here today! Next slide. Bear in mind that a reading disability will not take long to affect a child's performance in other areas. But with that in mind, take any child who is intelligent enough to be achieving well in some areas, but is not doing so in

others. Note that he is making some typical errors.(Next slide). And then look for one or more of the 6 major associated characteristics I've mentioned.

1. Uncertain lateral dominance.
2. Late or abnormal speech.
3. Hyperkinetic syndrome.
4. Motor inco-ordination.
5. Abnormal perceptual-motor function.
6. Family history.

If we can identify one or two of these in such a child, the presumptive diagnosis of specific learning difficulty can be made with reasonable confidence.

But then we have a harder task. In speaking of diagnosis so far, I've referred merely to recognition of the existence of a specific learning difficulty. The other aspect of diagnosis is one for which it is customary to ask for the services of an educational psychologist with his battery of tests, aided ideally by representatives of other disciplines where necessary, such as speech therapy and medicine. That's what has been called the prescriptive diagnosis - a detailed diagnosis of strengths and weaknesses which provides a prescription for treatment, that is in this case for remedial teaching - a diagnosis that can tell a teacher where to start and which methods are most likely to be successful in the light of the functional characteristics of each child's individual central nervous system.

Now I am going to tell you a secret. Prescriptive diagnosis such as I have just described is the logical prerequisite to the best remedial teaching. Use it if you can get it. But some of you are already painfully aware of part of my secret, namely that diagnosis of this kind has a very limited availability. So what you <u>should</u> do is something that you <u>can't</u> usually do at present. For it to be possible we would need two or three times as many educational psychologists as we have. Moreover I think it would be very wrong to provide these and to make the prescriptive diagnoses without at the same time making provision for carrying out the prescriptions, that is providing <u>ten</u> times the present number of properly trained remedial teachers <u>and</u> providing in every school a properly equipped resource room or rooms in which they could work. An analogy in my own professional field would be to examine and prescribe for a sick child, to hand the prescription to the parents and to say, "That prescription will make your child well but there is nowhere where you can get it made up".

Knowing the lack of prescriptive diagnostic services, and realising that both ordinary and special teachers throughout the State are faced with the immediate necessity of trying to cope with the problems of the 10-15% of intelligent non-readers, the organisers of this symposium have tried to produce something which can be of practical help in the existing situation. Fortunately, coping in this way may not necessarily be a second-rate procedure. There is some experimental evidence to suggest that good results can be obtained without a preliminary prescriptive diagnosis. That's a rather unorthodox claim and no doubt further research is needed, but one such investigation was made by Barbara Bateman, who had a good deal to do with the early development of

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6. Family history.

If we can identify one or two of these in such a child, the presumptive diagnosis of specific learning difficulty can be made with reasonable confidence.

But then we have a harder task. In speaking of diagnosis so far, I've referred merely to recognition of the existence of a specific learning difficulty. The other aspect of diagnosis is one for which it is customary to ask for the services of an educational psychologist with his battery of tests, aided ideally by representatives of other disciplines where necessary, such as speech therapy and medicine. That's what has been called the prescriptive diagnosis - a detailed diagnosis of strengths and weaknesses which provides a prescription for treatment, that is in this case for remedial teaching - a diagnosis that can tell a teacher where to start and which methods are most likely to be successful in the light of the functional characteristics of each child's individual central nervous system.

Now I am going to tell you a secret. Prescriptive diagnosis such as I have just described is the logical prerequisite to the best remedial teaching. Use it if you can get it. But some of you are already painfully aware of part of my secret, namely that diagnosis of this kind has a very limited availability. So what you <u>should</u> do is something that you <u>can't</u> usually do at present. For it to be possible we would need two or three times as many educational psychologists as we have. Moreover I think it would be very wrong to provide these and to make the prescriptive diagnoses without at the same time making provision for carrying out the prescriptions, that is providing <u>ten</u> times the present number of properly trained remedial teachers <u>and</u> providing in every school a properly equipped resource room or rooms in which they could work. An analogy in my own professional field would be to examine and prescribe for a sick child, to hand the prescription to the parents and to say, "That prescription will make your child well but there is nowhere where you can get it made up".

Knowing the lack of prescriptive diagnostic services, and realising that both ordinary and special teachers throughout the State are faced with the immediate necessity of trying to cope with the problems of the 10-15% of intelligent non-readers, the organisers of this symposium have tried to produce something which can be of practical help in the existing situation. Fortunately, coping in this way may not necessarily be a second-rate procedure. There is some experimental evidence to suggest that good results can be obtained without a preliminary prescriptive diagnosis. That's a rather unorthodox claim and no doubt further research is needed, but one such investigation was made by Barbara Bateman, who had a good deal to do with the early development of I.T.P.A. The schools she investigated obtained better results by the initial routine use of intensive phonics, even with children whose discrimination of sounds was their main weakness. The same routine use of phonics combined with kinaesthetic procedures is the basis of Anna Gillingham's methods. And I recently saw a reference to a report from the

London Institute of Education - it had Downing's name associated with it - saying that the look-say method produced 12% poor readers, whereas starting with phonics produced only 7%. (This was in a large number of schools in London). So perhaps you should look again even at your routine methods. It's also true that a good teacher can, within some limits imposed by her training and experience, progressively arrive at her own diagnoses and prescriptions as she goes along. We are very fortunate in being able to listen to such an eminent psychologist and educationalist in this field as Professor Neale. I think she may be going to tell us something of tests which can be carried out by the ordinary teacher, rather than those which must be carried out (in this State) by a registered psychologist (thanks to the Scientologists). So although detailed psychological testing is absolutely essential for research purposes, and may well prove to be the best starting point for remedial teaching, it is by no means true that in its absence we need despair.

For the remaining few minutes I would like to comment on two or three implications of the concept of specific learning difficulties. If the emphasis in our diagnosis is to move away from interpersonal relationships towards a study of the characteristics of the child, there must be a corresponding shift in our approach to management. One implication in this will be a change in our attitude to the children. No longer will reports on learning difficulty children go home with comments like, "He could do well if only he would concentrate", or "Johnny could try harder". Instead it seems to me to become clearly the function of the school to discover why he doesn't concentrate, why he doesn't try harder. To send home a report like that - and they are very, very common, is merely saying in another way that the school has done its job, but the trouble is in the home. Well, at any rate that is the way that most parents will interpret it, and their reaction is likely to be either unwarranted pressure on the child, or else hostility toward the teacher. Neither of those will do anyone any good.

For the last 50 years, these intelligent under-achievers have been regarded as problems for the psychiatrist and the clinical psychologist, and the results have been dismal - 10% illiteracy, a proportion of delinquency, large numbers of dissatisfied and guilty-feeling parents, and so on. So the second implication of our fresh look at the problem is that the ball comes squarely back to the teacher. Can the teacher do any better than psychologists and psychiatrists? To my mind the answer to that question is the most exciting aspect of the whole matter. I believe the answer is an unqualified "Yes", provided we meet certain conditions. The first condition is that we look for these children early, and by early I mean in or before their first year at school. The second is that we make adequate provision for them in our educational structure - provision in such matters as teacher training, size of classes, suitable rooms, and above all, provision for the adequate training of adequate numbers of remedial teachers.

Take first the condition that we make an early start. Doctors Ilg and Ames of the Gesell Institute at

progressively arrive at her own diagnoses and prescriptions as she goes along. We are very fortunate in being able to listen to such an eminent psychologist and educationalist in this field as Professor Neale. I think she may be going to tell us something of tests which can be carried out by the ordinary teacher, rather than those which must be carried out (in this State) by a registered psychologist (thanks to the Scientologists). So although detailed psychological testing is absolutely essential for research purposes, and may well prove to be the best starting point for remedial teaching, it is by no means true that in its absence we need despair.

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Take first the condition that we make an early start. Doctors Ilg and Ames of the Gesell Institute at Yale have put the matter succinctly. "Third Grade is too late. By that time a child who is perceptually handicapped can be messed up good and plenty". Rather less academic language than we expect from that august centre, but the message is clear. Schiffman, in his report to the International Reading Association (next slide) emphasised the

importance not only of early diagnosis, but also of individualised remedial teaching outside the ordinary classroom. That slide shows the result of his investigation.

SCHIFFMAN : Percentages of dyslexia children reading at normal grade level at end of year

Grades	2	3	4	5	6	7	8	9
Receiving Remedial Teaching	82	46	42	18	8	10	11	6
Not receiving Remedial Teaching	18	6	6	3	1	.5	.25	.25

Note two things: the better results with remedial teaching (the upper line compared with the lower) and the better results when the problem is tackled early (the left hand side compared with the right).

Granted an early start, what sort of results can we get from remedial teaching? Margaret Rawson in her book "Adult Achievements of Dyslexic Boys" has shown that with early good remedial teaching, children with specific language disability do just as well in adult life as their matched non-dyslexic peers. Sam Clements, when he was here in March, told us that in Arkansas children with S.L.D's, on the average, were able after 12 months part-time remedial teaching, to return full-time to the ordinary classroom and to maintain their position thereafter. Such results may not be very common in Australia. Let's face it, we have very few highly trained remedial teachers, they often don't have the opportunity to see these children daily, nor to have them in their own schools. But I have seen results as good as those described from the U.S., coming from 3 or 4 teachers I know in Victoria and I'm sure there must be others.

Now what about the second condition? You will remember it concerned proper provision in such matters as special rooms in schools and adequate numbers of adequately trained remedial teachers. It's not really for me, of course, to say whether it is better to use remedial teachers in special rooms or more fully trained ordinary teachers with sufficient reduction in size of ordinary classes to permit individual help to those children who require it. But the remedial teacher does seem a more economic proposition.

It's not my place either to detail how a remedial teacher should be trained, but my idea of an adequately trained teacher of children with specific learning difficulty would be one trained to teach children with specific learning difficulties - not children with a wide variety of disabilities. I think teaching is at least as important as doctoring. We in the medical profession deal with children's bodies and emotions. You teachers deal with their minds and characters. I don't know which is really more important, but perhaps minds and characters are. So I think teachers should be as highly trained as doctors. Now I wouldn't think much of a training for a medical

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particularly should be a specialty in itself - this, after all, is the biggest group of children needing Special Education.

Another condition was the provision of adequately trained remedial teachers in adequate numbers. This will, of course, cost money, but the cost is entirely within the reach of our affluent society once we convince that society, and it in turn convinces its politicians, that it wants to spend the necessary money. There is no doubt about our being able to afford it.

Suppose we in Victoria decided to get the problem of specific learning difficulty under control in the 1970's. I have based my calculations on the estimated minimum requirement of an additional 600 remedial teachers, 80 psychologists, a corresponding increase in training facilities, and a thousand properly equipped resource rooms in which these people could work. (I don't think children should be removed from their home schools for this purpose, so we would need more rooms than teachers so as to provide for schools not big enough to use a remedial teacher full-time). After due allowance for rising costs and salaries and for wastage of trained personnel, the total cost spread over the decade would be no more than $60 million ($6 million per annum). In that same decade, Victoria is expected to spend $400 million on colour television - over 6 times as much. We can probably have both if we want, but if there has to be a choice, is there any doubt which to choose? And, of course, it won't really cost us anything in the long run. We would more than save the $6 million annually in reduced cost of coping with mental illness and delinquency, and in increased productivity.

There is one catch to such a ten-year plan - the staff to train the remedial teachers. I am not implying criticism of the people conducting the two courses now available in Melbourne, but we are all only too familiar with the problems of staffing expanding Universities and Secondary schools. With the tremendous expansion in both numbers and curriculum that the specific learning difficulty concept implies, staff for courses in remedial teaching will impose a crucial bottle-neck. I think that is a job on which Universities and Teachers' Colleges should get together, and the time for them to start is right now.

In conclusion: all things considered, it would seem to me that there are three methods by which we can deal with our intelligent under-achievers: put them at the back of the room and forget them (this has been the commonest when they didn't make a nuisance of themselves); psychotherapy in its various forms (the one usually adopted when they did); or thirdly, adequate, early, well-directed remedial teaching. Of the three, remedial teaching is in the long run less expensive and more effective, though at this moment in history, it is also less available. For the sake of our intelligent under-achieving children, let us make some new history.

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Question: Could you please explain the improvements that tranquillisers prescribed for

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Question: Could you please explain the improvements that tranquillisers prescribed for problem children could make on their behaviour? (attitude?)

Answer: I suppose the area in which tranquillisers are most likely to help is that of distractability and short attention span. A child who is hyperactive, who is unable to attend for long enough to learn, will have his learning

ability improved if some drug, not necessarily a tranquilliser, can enable him to pay attention for a longer period of time. That is the area in which medicinal treatment is of greatest help to children with learning disabilities. I think the best way to deal with this long question is to take just a few words at a time.

Q. If tranquillising treatment (presumably tablets) is required during the day at school, is the classroom teacher legally and legitimately in a position to administer this form of treatment?

A. I think we might put this the other way round. A classroom teacher is legally entitled to refuse to administer such treatment, but in my experience very few teachers do. That is, when a parent makes a request that a teacher sees that a child takes a tablet at a certain time, the teacher almost invariably agrees to do so. Somebody who saw this over my shoulder a few minutes ago said that the teacher does not have to administer it. All he need do is to say, "Jimmy, it's time to take your tablet and here it is". The child administers it to himself. I hope that teachers continue to co-operate in this way because for children with epilepsy, for example, it is highly important that treatment should be given at the right time.

Q. There has been much comment regarding the result of organic deficiency, genetic influences etc., giving rise to specific learning difficulties. Accepting that at present the extent of professional training given to teachers is limited, and that this situation may remain for some considerable time, apart from the recognition of the learning difficulties which appear in the classroom, in what way does the practising classroom teacher become aware of those areas which could be directly in the province of medicine?

A. I don't quite know how the classroom teacher becomes aware of the areas which could be directly in the province of medicine, except in the sort of way I was trying to explain this morning. There are many areas which are partly medical, partly educational, and it behoves those in each profession to become familiar with the overlapping portions of such problems. You could say that determining a child's laterality, cerebral dominance, is a medical question. But it is also an educational one. It has considerable relevance to learning to read and write. I don't see why a classroom teacher should not be able to become familiar with this sort of thing.

Q. What is the legitimate procedure for calls to be made on the School Medical Services and how speedily can this be provided?

A. The legitimate procedure for a call to be made on the School Medical Services apart from the routine visits which the Service itself arranges is simply for a Head Master to ring the Headquarters of the School Medical Service. We will endeavour to provide what help we can. But like remedial teachers and educational psychologists, school medical staff is extremely limited in numbers, and though there are large numbers of problems with which we would like

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with a rash and the parents refuse to take the child to a doctor - you can ask for a school sister to go out and do something about the problem if you think it's an infectious disease, and usually the response is immediate, but we can't guarantee it because there may literally be nobody available.

Q. Does the School Medical Service recognise the function of a classroom teacher at this point, and what is asked of her or him?

A. I don't think I really know what that means; will the questioner enlarge?....(Questioner inaudible)..... whenever a child is referred by a classroom teacher we ask that the teacher should write notes on the problem as it appears to him. Little slips are given to the Principal at the school for this purpose and should be handed to those teachers who refer children.

Q. What return contact is made from the School Medical Service to a classroom teacher?

A. When a school medical officer leaves the school he leaves with the Principal a written report on each child referred and on each child in whom a defect was found, if it has some significance to the management of the child at school. I trust it is always available to the classroom teacher. At some schools there's a little staff conference at the end of the visit when children are discussed. I suppose that is unusual, but it is certainly very profitable.

Q. In view of the highly specialised nature of the possible approach in treatment, and a child's reaction which may vary from day to day, apart from some form of isolated placement, what feasible recommendations is the School Medical Service able to make to assist the class teacher to cope with such a case in the existing classroom structure?

A. As I said this morning, many of the problems we have been talking about today have some medical relevance. This problem is primarily an educational one. Usually, the only and best recommendation that a School Medical Staff person is able to make is to ask the Principal to refer the case to the Psychology and Guidance Branch for further guidance. It does occasionally happen that we can give some relevant help, particularly as to general management of a child - how he should be handled and how he should be managed in general rather than academic situations. But generally speaking it is an educational problem.

SEMINAR FOR TEACHERS CONVENED BY SPELD (VIC.)
AND THE INTERNATIONAL READING ASSOCIATION.

Saturday, November 14, 1970.

READING DIFFICULTY AND THE INTELLIGENT UNDER-ACHIEVER

Psychological Assessment for Remedial Teaching

(Professor F.N. Cox)

I want to counterpoint what Dr. Hagger has been saying in terms of general research and to go over some points as a psychologist, as distinct from a teacher or medical practitioner.

One is often asked what is meant by psychological assessment. What one answers to, say, medical students, differs from what one would explain to a law group. Yet some things are common to all sorts of situations.

If you judge by watching television or reading magazines, you would get the idea that psychological assessment is something conducted in a soundproof room with an elaborate series of flashing lights and electronic apparatus. Another conception is that it is some kind of tea-cup reading, showing people ink blots, or antiquated drawings.

The definition of psychological assessment that I would like to put before you is the careful observation by a psychologist of an individual in a variety of specially constructed situations.

The observations are of two kinds: there is the observation that we all have at our disposal, of simply watching and listening and deriving inferences from our observations. Controlled observation is not very different, except that we present the individual with certain pre-determined tasks and therefore can compare him with other individuals. It sounds easy enough, but the first problem is that no two children behave in exactly the same way, they don't behave consistently themselves, and they don't behave in exactly the same way as any one else. Nor, if we are looking at them from the diagnostic point of view, do they ever suffer exactly the same complaint, which means that the psychologist, as an observer, can never repeat his observations precisely. Consequently, if he is not going to get lost in the woods, which is not uncommon, he has to inure himself one way or another, to the various complexities and variabilities that children, parents, and all of us, exhibit.

The psychologist, particularly in the field of specific learning disabilities, has to try to discover some order in a field that is essentially untidy and quite complex. To do this he has to be careful and to pay a lot of attention to detail.

At the first meeting with a child, the psychologist, if he is doing his job properly, will spend quite a long period of time, preferably on more than one occasion, observing the child, talking to him, asking fixed questions, at the same time being able to improvise his questions to fit the situation. At the same time he has to make, as best he can, notes to guide him in his assessment.

Psychological tests - or assessment procedure is a phrase I prefer - are to assist the psychologist in making his observations. The most useful ones are fairly standardized interviews which afford an opportunity to study the patient's responses to many different questions in a wide variety

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Psychological tests - or assessment procedure is a phrase I prefer - are to assist the psychologist in making his observations. The most useful ones are fairly standardized interviews which afford an opportunity to study the patient's responses to many different questions in a wide variety of situations.

The other aspect of psychological assessment I wish to mention is that the psychologist, no matter what specific disability he might be investigating, must concern himself with <u>all</u> aspects of the child's behaviour. Failure to do this means that he has certain pre-conceptions which would restrict and limit the information he is seeking. If for

instance one is asked to see a child whose school performance has been uneven, systematically uneven in the sense that his reading is extremely weak and his spelling distinctly poor, one should look at this child from a number of points of view. The psychologist has to make some estimate of the child's overall intelligence, and some estimate of his particular abilities. Whether he wants to or not, he is going to notice the child's motivations, his intent to perform; and he is going to be aware of the fluctuating emotions of the patient. He is certainly going to obtain some information about the family situation, even while he is predominantly concerned in such a case with the child's educational attainments or lack of attainment.

All of which means that psychological assessment does take time.

Another point I wish to make is that the value of the psychological assessment is directly related to the training and experience, and in a real sense, the personality of the individual making the assessment. It is important that you have some knowledge of the psychologist. This comes from reading his reports, and also from discussing the apparent value of the reports with your colleagues.

Three aspects of today's subject, "Psychological Assessment for Remedial Teaching" - should be noted: firstly, the nature and extent of the learning disability; secondly, the probable causation of the disability; and thirdly, the likely responsiveness of the child to remedial help or remedial teaching. And I must stress that my focus here is on individual children. I am not reporting the results of surveys.

To assess the learning disability, the psychologist should first have or make some formal or informal assessment of the educational attainment of the child. There are certain standardised tests to assess the reading age of the patient, his spelling level, or his mathematical proficiency. (Most of the tests available in Victoria were devised many years ago and are remarkably out of date. New tests are being devised but in general the psychologist is extremely dependent on the teacher's observations and the teacher's marks; particularly valuable are the teacher's informal, informed comments.)

If a child is greeted, when he first visits a psychologist, with a series of tests designed to assess how well he can spell and how much he knows about mathematics, or how well he can read, this can have an unfortunate effect on the rest of the assessment: he is obviously being 'confronted' with the areas of knowledge where his skill is not very good, in which he has experienced a great deal of frustration and resentment.

It is obviously unintelligent to begin by attacking him at his weakest point; obviously it is better to have collected this information before hand from the teaching source. The teacher has had a great deal of time to observe the child, and her information will be far richer than the performance a child can give on any standardised test.

Assuming that the investigator has advance information about the nature of the disability, his job is then to look at the psychological processes involved. Firstly, is sensory information being received adequately? Before any psychological assessment can be made there must be independent evidence that the child is getting the information in through his senses, that his hearing or vision are sound.

The second stage involves the psychologist more deeply. He has to find out whether the information received is being adequately co-ordinated and integrated by the child. To assess these particular processes is the

to or not, he is going to notice the child's motivations, his intent to perform; and he is going to be aware of the fluctuating emotions of the patient. He is certainly going to obtain some information about the family situation, even while he is predominantly concerned in such a case with the child's educational attainments or lack of attainment.

All of which means that psychological assessment does take time.

Another point I wish to make is that the value of the psychological assessment is directly related to the training and experience, and in a real sense, the personality of the individual making the assessment. It is important that you have some knowledge of the psychologist. This comes from reading his reports, and also from discussing the apparent value of the reports with your colleagues.

Three aspects of today's subject, "Psychological Assessment for Remedial Teaching" - should be noted: firstly, the nature and extent of the learning disability; secondly, the probable causation of the disability; and thirdly, the likely responsiveness of the child to remedial help or remedial teaching. And I must stress that my focus here is on individual children. I am not reporting the results of surveys.

To assess the learning disability, the psychologist should first have or make some formal or informal assessment of the educational attainment of the child. There are certain standardised tests to assess the reading age of the patient, his spelling level, or his mathematical proficiency. (Most of the tests available in Victoria were devised many years ago and are remarkably out of date. New tests are being devised but in general the psychologist is extremely dependent on the teacher's observations and the teacher's marks; particularly valuable are the teacher's informal, informed comments.)

If a child is greeted, when he first visits a psychologist, with a series of tests designed to assess how well he can spell and how much he knows about mathematics, or how well he can read, this can have an unfortunate effect on the rest of the assessment: he is obviously being 'confronted' with the areas of knowledge where his skill is not very good, in which he has experienced a great deal of frustration and resentment.

It is obviously unintelligent to begin by attacking him at his weakest point; obviously it is better to have collected this information before hand from the teaching source. The teacher has had a great deal of time to observe the child, and her information will be far richer than the performance a child can give on any standardised test.

Assuming that the investigator has advance information about the nature of the disability, his job is then to look at the psychological processes involved. Firstly, is sensory information being received adequately? Before any psychological assessment can be made there must be independent evidence that the child is getting the information in through his senses, that his hearing or vision are sound.

The second stage involves the psychologist more deeply. He has to find out whether the information received is being adequately co-ordinated and integrated by the child. To assess these particular processes is the proper role of psychology.

The third stage - very important in spelling and writing - is the area we call the response output of the child. Information received through the senses has to be integrated in some fashion or another in the brain and then translated into action: he has to read, or to write, or something. If there is dysfunctioning in this area the psychologist can be useful in assessing it.

Let us look in a little detail at the way information is integrated, co-ordinated and interpreted by a child, as it is in this area that specialised psychological tests can be of use.

A child who is integrating information, co-ordinating it, and combining it effectively, shows a number of characteristics.

A well-functioning child of the chronological age of between 6 and 8 will be able to perceive a number of similarities and differences. We are able to show that he can do this by asking very simple questions and getting him to do simple things. For example we could ask him the similarity between wood and coal. You could also ask what are the similarities and what are the differences between a ship and a motor car. The child compares and discriminates between two words that act as symbols for particular objects. "Yes, they are both different," "One is bigger than the other" would be not unreasonable answers for that age level. Asked about similarity, a child may say, "Oh, they can both be white". Another child may say "Many ships are made of steel" or "made of metal, and so, too, are cars."

You will see, then, that such a child of 6 or 8 is capable of a certain degree of abstraction.

Also one needs to look at the child's perception of similarities and differences without words, or with the role of words down-played as far as possible. This is where such tests as the Bender-Gestalt help, where the child can be presented with a simple pattern, a simple geometric pattern, and asked to copy it. Some children can become nervous of course and perform badly and then, 15 minutes later, will copy these patterns much better. Psychological assessment does need repeated observations, either in the one session or in different sessions. One must take time to give the child maximum opportunity to function as well as he can.

The normally functioning child from 7 to 8 will copy quite difficult geometrical patterns. At nine, he will be able to copy virtually any geometrical pattern, as well as - and often better than - adults.

The next stage in the assessment of these capacities to integrate and combine, is to see whether the child is able to notice differences and similarities in patterns. Can he <u>perceive</u> quite subtle differences? Can he perceive rather obscured similarities? The normal child of 7 to 9 years will be able to do these tasks rather easily. A child with a specific learning disability will exhibit dysfunction in these three areas, certainly in two out of three. As stated before, firstly in the case of words, the perception, the ability to state similarities and differences, will be found to be impaired. In the absence of adequate psychological procedures in this State, this is one type of assessment that can be made informally. Just notice, casually, without trying to give psychological tests, the ability and the disability of the child with respect to perception of simple similarities and simple differences. Pairs of words, and pairs of objects can readily be employed to get evidence of disability in the 8 to 8-year-old range.

Again, to test visual ability and disability, there exist many books of 'patterns' of the 'dot' variety. If you stop the child after he has completed about a third of the pattern and ask him to guess the name of the object, you will find this a useful means of detecting difficulties in perception.

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The third area to assess is the quality of the response output. The execution of motor movements, both of the gross kind which Dr. Hagger mentioned and the much more specific or fine kind involved in moving fingers and moving joints can be assessed quite simply by direct observation.

Certainly when there is evidence of relatively poor fine muscular control and relatively poor co-ordination, then the likelihood that the child has a specific learning disability is markedly increased - particularly, of course, if you have direct evidence of poor learning occurring in the classroom.

In making observations of this kind, whether formally in a psychological assessment situation or informally in school, there are two base lines to be aware of:

(1) One is comparing the child with one's accumulated memories of all other children of the same age. You need to break that down and compare boys with boys and girls with girls, as in nearly all areas of development up to 8 or 9 years of age, the girl is going to exceed the boy.

(2) More important is the second base line: one is comparing the child with himself. This means that if you get the child at the beginning of the year and then watch him going through until the end of second term, you may notice his inability to learn in one, two or maybe three areas. You have also got observations of his strengths in other areas, and you have the chance to see if there is any change in his competence in reading or spelling over that period. In formal psychological assessment it is considered very useful to see the child on one occasion and then on another one. Apart from physical afflictions like colds and viruses, children do fluctuate remarkably from day to day, and we do need to observe them on several occasions to prevent ourselves jumping to hasty conclusions.

When the psychologist has had the chance to observe the child, to ask him questions, to get him to do things in controlled situations, and also in quite uncontrolled ones, he should be able to pin-point the main areas of difficulty. I am thinking here in terms of the psychological processes involved in the activity rather than anything else. He should be able to say, "These are the processes that are not functioning. This child is not able to perceive similarities, not able to abstract beyond a certain level." The next stage is to suggest to the remedial teacher particular procedures that may strengthen the child in his weak areas. If, for example, the child cannot cope well with similarities and differences between words, we should start him at the very simplest level: one can take objects from the teacher's desk or handbag - from anywhere - show them to the child, let him examine them and then enumerate the differences. This is a slow training: you show the child very systematically and slowly that this is larger than that, this is longer than that, this is a different colour from that, and so on.

Training in differences nearly always should precede training in similarities, because differences are easier to recognise. The child will experience a little success - and these children do not experience a great deal of success, as we all know. Training in similarities must start with concrete objects, start at a very simple level and gradually be built upwards.

The causation of learning disabilities

The psychological assessment should comment on the causation of the disabilities found since it has bearing on the kind of programme to be recommended and also on its duration.

One can distinguish three kinds of causation in learning disabilities, the first two being far more common than the third. The first one is where the child has a primary disturbance in reading, that is, an inborn disturbance in reading skill, where conclusive evidence of brain damage is not available.

We assume here, as Dr. Hagger mentioned, that there is a basic neurological impairment, because the child functions in a way to indicate this impairment; that is, he functions like other children with known neurological impairment.

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The second group: those who have a primary reading retardation with quite explicit and quite marked brain damage. Maybe from severe injury at birth, maybe from subsequent illness or injury.

The third group, by far the least common, is the so-called secondary retardation, where the causation (in the absence of other evidence) appears

to be emotional. These are the ones that Dr. Hagger mentioned that got so much attention 15 or 20 years ago, where tortuous attempts were made to explain the reading retardation in terms of the child's assumed unconscious identification with the mother and non-measurable variables of this kind. One does find in practice that there is a small group whose reading or spelling disabilities are related to emotional factors.

But this third group is relatively uncommon.

Causation of reading or spelling disabilities is predominantly biological.

However, with children who have learning disabilities there are nearly always secondary emotional consequences - often caused by striving, pushing parents who place a great deal of importance on education - frequently as a means to some kind of occupational end. Children suffering parental pressures as well as a learning disability exhibit feelings of inferiority, frustration and hostility, and tend to give up in the face of difficulty. If one tries and tries hard, and finds that one's hardest efforts fail to produce success, it becomes very easy just to give up!

A psychological assessment should try to spell out some of these emotional factors, to help those involved in educating the disabled child. Confronting questions should be: Does this child tend to give up easily in the face of difficulty? Does he tend to become very depressed, moody, irritable, or is he casual and disinterested (which is an easy way also of dealing with feelings of frustration)?

I have mentioned these notions of causation because they do have pretty direct effects on the overall treatment programme for the child. In the case of the most common group (primary retardation with neurological impairment but where the assessment of the neurological impairment is often difficult) remedial teaching is indicated. The chance of getting the child up to a normal reading age within the space of a year is quite good, if the child is 6 or 7 years of age. If he is 7 or 8, usually, I think, the treatment programme will take longer. If he is 9, it may take 2 or 3 years for him to catch up, and in about one-third of cases you may not get him there at all. If the child is older than 9, the chances of proper development of reading skills is poor.

The intelligence level of the child concerned is of course a factor in improving disabilities. To progress, the intelligence level needs to be 'average' -- or, ideally, better. The motivation of the child in school -- the child's desire and intent to learn -- is also of great significance.

Again, if the remedial teacher is not only competent but also warm and responsive, and anticipates the secondary emotional difficulties so that they do not inhibit the learning process, the prognosis must improve. It has to be remembered that most of these children have received remarkably little in the way of positive reinforcement in learning.

In general, if the child is aged under 9, and, given good ability and positive motivation, plus an effective remedial teacher, the chances of improvement are remarkably good.

With the second group, where there is a primary reading disability with demonstrable brain damage, the prognosis is obviously poorer, depending on the assessment by the neurologist of the extent of the brain damage and the areas affected. Nevertheless the other factors I have mentioned still are important in assessing his likely responsiveness - the degree of intelligence, the motivation of the child and the skill and sympathy of

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The small group of children whose reading disabilities flow from emotional causes are found to respond very quickly to treatment. They learn to read remarkably quickly, provided the emotional difficulties are treated successfully with medication or with some type of therapeutic intervention.

The main conclusion I would make is that some kind of psychological assessment of these difficulties is very desirable. It enables us to look first at the nature of the learning disability, second, whether the difficulty is one of perceiving differences, perceiving similarities, or both: whether they involve visual patterns, or words, or both. Assessment of this kind can itself have quite good effects - the child realises his difficulties are at last being recognised.

The second conclusion is that the remedial teacher needs a comprehensible, as well as a comprehensive, report from the psychologist for her to act upon.

And a final point: where a child has had remedial help, it is useful to have him re-assessed after a period. This provides information that can be very useful to the psychologist and very heartening and helpful to the parent, the child and the remedial teacher.

THE CONSEQUENCES OF INITIAL FAILURE IN LEARNING TO READ.

Hugh Esson.

I want to approach this afternoon's topic in what may seem to be a roundabout way. I want to address myself to the question, "What is it that we have to try to remedy?" I want to describe to you some features of adult illiterates because this is a group which I know well. But I think that many of the things I say will apply to other groups too. Perhaps I could explain very briefly how I became interested in working with adult illiterates.

While working as a clinical psychologist, I was impressed by the fact that something like two thirds of children presenting with emotional problems also had educational problems. Out of my ordinary work, there developed the idea that remedial work and psycho-therapy were not very far separated. Quite often the treatment of choice was to deal with the educational problem. Progress educationally was often associated with progress in other areas of behaviour. I then became concerned (about twenty years ago) about the school leaver; about the problem of some of my retarded readers who were leaving school semi-literate, with a long record of failure, and apparently without anybody who cared very much about it. It also seemed to me to present an opportunity for doing something a little beyond my ordinary everyday work. It was possible perhaps to run a remedial group at night for such people: most of them were male, and the problem of transport was not a serious one. This was how it started. The other thing which interested me about this group was the thought that if one took the older backward reader, one might see the problems "writ large". One might get greater understanding of some of the factors involved in reading failure, just of course as psychiatry and psycho-analysis have taught us a great deal about normal development from their careful study of abnormal development. So I continued with a group of adult illiterates at the clinic for a number of years, and I took that group with me to the university and still continue with them.

What I wish to examine now is the question, "What is the adult illiterate like?" Usually the ones I see are late teens or early twenties, occasionally a little older. What's he like when you see him at your first contact? You notice first of all that he has had difficulty in finding his way. He's more likely to be too early than he is to be late. His manner is diffident. He is unused to situations in which he consults or is examined. From the first moment one sees him, poor social confidence and low self esteem are evident. His speech is likely to be soft, perhaps even slovenly. One can understand what he says quite well but his vowel sounds are neutral rather than pure; his consonants are not very sharply produced; he speaks in short rather than long sentences, or more likely in loosely connected phrases. His vocabulary is limited; he's learned the current stereotypes of popular language: rather than "Yes", he says "No worries". He is, if you like, speaking like the uneducated working man, and yet one

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A study of his school history reveals regular attendance, and that he left school at school-leaving age. His memory of his early attempts to read is quite blurred.

However, one finds on questioning that at school there slowly emerged until it became quite clear and definite, the fact that he couldn't read. Quite often this was associated with failure in all school subjects, but nearly as often his performance in arithmetic was average and perhaps sometimes good. Along the way in Primary School, quite typically, one teacher, never more than one, had made an effort to help him with his reading, but that effort was not successful. The message he finally got, loud and clear, was that his reading disability was something within him: he was mentally dull, ineducable. A few teachers were punitive and rejecting, while others adopted a laissez-faire attitude. One of my lads spent his school career in the back row, drawing. He is a man of well above average intelligence. Another became the unpaid school gardener. It's interesting that the stereotype of reading failure being equated with mental retardation still persists. I'm going back now not many years, but just a few weeks to a child I saw recently, where the teacher interviewed the mother and gave very careful advice by saying, "Your child cannot learn to read. He is mentally retarded". This child was testing at about average in intelligence.

The family history of the backward readers I see is of course tremendously varied; however, whether the family is described as "stable" or "unstable", the response of parents and siblings to reading failure shows a degree of consistency. Parents are concerned, and literate siblings are puzzled. I think that this is most important, and I'll just say a very brief word now on the reaction of parents to reading failure. Parents are not disinterested; they are in fact very anxious. Because of their anxiety, they may do many things which make the child's emotional problem more difficult. You will often find that he is compared with his brighter literate siblings, and that family attitudes can develop that make the family situation very difficult for the child. Feelings of failure and rejection in the family are added to the feelings of failure and rejection which have been felt in school. What is the reading performance of these lads like at this age? Once again there is a lot of variation. Some will be virtually illiterate - this is fairly rare, but you do find it: there'll be others whose reading on standard tests may be as high as early Grade Two, perhaps even early Grade Three. However, what will apply, whatever the particular level, is the fact that for all of them, reading is associated with a very high output of energy and is most exhausting. At the end of a reading test, the person who's been tested is flushed and emotionally drained. If one asks them to write, one sees the same sort of thing - the tremendous amount of energy required to do something which so many people have learned to do with a minimum of effort.

What is their cognitive performance like? More often than not, one finds on verbal tests that they are testing below average, usually not so far below average as to make one feel they could not learn to read, but sufficiently below to represent something of a problem. On performance tests, on more practical sorts of intelligence tests, it's rare in my experience for them to test very much below average. What is the personality picture like? What

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in some people to what perhaps would be better called a repressiveness; a tendency to force experience out; not to know; not to feel; what I often call the "encapsulated" person. This is very typically the sort of picture - that they are functioning below their potential in every sort of area. They get by but only by restricting their total experience of life.

Now may I come back to my first question - "What have we got to remedy?" Of course my list will not pretend to be complete. One thing that comes to mind is the whole area of oral English - the discrepancy between what we say and the things books say. With the sort of group I know, this is a very wide discrepancy, and a lot has to be done in the development of oral English. There has been a lot written in terms of the development of reading comprehension, whereas what we are talking about is, of course, language comprehension and language enrichment. Quite often there is a confusion here. And very often there is a big area in which they need to explore their language and to gain confidence in talking about things.

The second area is their poor verbal ability and with it a very poor level of general knowledge. Because of their illiteracy they have picked up very little general knowledge. They are very restricted in the ways they can use words and explore ideas. A tremendous lot has to be done here.

Thirdly I want to mention specific help with reading, and all that I shall say here is that this specific help with reading has to be the kind which builds confidence through the experience of success and through a growing confidence in their ability to solve reading problems for themselves. They need to see themselves becoming more independent in their approach to reading.

Finally there is the large area of help with social and emotional problems. I could give you a recent example of this. One of the lads in my group, aged 18 and totally illiterate, was very keen to obtain a driving licence. All the members of the group got to work, and over a period of some weeks he became one of Melbourne's experts on his road law, and we all had a sense of triumph when he got his driving licence. You might say, "What has this to do with reading?" It seems to me to have a great deal to do with reading, and that the sort of things I am talking about do apply even earlier. The experience of one's worth as a person is a fundamental psychological need and a human right.

A teacher in England made a comment to me about remedial groups which applies very much to all the things I've been talking about. It's a very simple statement - one which I wish I had made. He simply said, "You have to care and you have to communicate to them that you care". This caring needs to go on and on like a river.

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Q. How would you comment on the amount of success you have received in teaching older illiterates over the age of 18? What reading age would the average person in

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Q. How would you comment on the amount of success you have received in teaching older illiterates over the age of 18? What reading age would the average person in your group attain after two years? Have any of your remedial reading students been capable of going on to tertiary studies?

A. There are a number of points of interest here on which I will comment quite briefly. I have a problem in

my group, which is rare with remedial teachers. There comes a time when their job is finished. The child leaves school or is transferred back to normal classes. There has been reading progress made of a certain kind. This is definable, and there is a sort of end to it. There is no end point with mine. I don't know where to stop. I'm not sure that there is any point where one can stop. Let me tell you the sort of thing that usually happens. It's not a matter of very great difficulty to improve reading skills. They come along and are reading at, say, Grade One level, and one has them reading at Grade Three level. Something has been done which has contributed a little, but they still have a reading problem. Perhaps if you battled on a bit harder, you might have them reading at a Grade Four level. This still represents a reading problem. It still represents with most of the group I see a sort of end point also, I think. Now there are several things involved in this. The first is that your school leaver is no longer in a literate environment. If he's at school, he is hearing lots of words and doing many things that are involved in learning. When he works in a rowdy factory where the lunch time conversation involves a fairly restricted range of vocabulary and of topics; where his home environment consists at the highest level of the TV set, there is not the sort of reinforcement which applies to the child who has developed adequate reading skills by Grade Three and who has read enormously, whether he knows it or not, in the intervening years. The ones I see have read very little and can never, in the time available to them, hope to get that degree of practice or of fluency that would make reading something easy for them. So there is always a degree of effort involved. Functionally, we can say yes, they have improved.

When we talk of tertiary education, I don't think it so happens in this group that we've had very many who, given the best of early opportunities, might have gone that far, but they've gone some distance. We can claim many successful trade courses, though some are admittedly largely practical: welding, spray-painting, sewing-machine mechanics, painting and decorating, motor mechanics, electrical trades. This is a group of qualifications which lads in my group have managed to achieve. Sometimes, while their literacy has been fairly faulty, they've had to take tape recorders to Tech. School. Sometimes they are given an oral, because of their difficulty in answering a theory paper. So we can say that one does get improvement of a kind which means that if it is necessary for them to read, they probably can. I very much doubt whether I've ever reached the point, except perhaps with one or two, where they have reached a level of fluency where they can read for pleasure. This is a very real problem. It is interesting that although our studies of the effects of remedial reading are not very many and perhaps inconclusive, the work of Dr. Lovell at Leeds would suggest that if remedial education is commenced above the age of nine, irrespective of intelligence, performance will never be above about a B level. This brings us back to the need for early recognition of reading difficulties and for skilled intervention. Where are we to get these people whom the teachers can consult? We've got to get them, we need a large number of them, and we need highly trained people. I would like to flood our Infant Schools with them, and then my group eventually might be able

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RECOGNITION OF AND INTERVENTION IN THE EARLY STAGES OF LEARNING DIFFICULTIES.

Angela M. Ridsdale

Perhaps I am temeritous in choosing this part of the topic, in that the word prevention gives the idea that certain things are preventable. While I am not bold enough to say that the consequences under discussion today can be prevented, what I would like to say is that if you can recognise a thing early enough, you can often intervene to prevent or at least modify the otherwise inevitable outcomes. So if we begin with recognition, we must begin by assuming that it is fatally easy to make a slick diagnosis, and that simply labelling someone is no guarantee of subsequent action. The purpose of recognition must be Intervention.

What is Intervention? - the presentation of learning experiences in a suitably adjusted programme, one that is compensatory, that strengthens and develops. Not everybody who enters school and who shows disabilities in spelling or writing, is perceptually handicapped. Now we all agree on this. Today will be no magic recipe for instant infallible recognition; merely an attempt to spell out certain symptoms that taken together can add up to a youngster "at risk". Of course there are other symptoms which <u>can</u> indicate perceptual handicap, but not necessarily <u>will</u>. Many symptoms are manifested in common by the slow developer, the retarded child and the emotionally handicapped. However, whether or not you make your diagnosis and apply a label there are certain basic techniques in beginning reading, and in language practice in the early years at school, which are beneficial to all children, if you show a flexibility of approach that may enable children to do better than they would normally and prevent the disabled from being forced into a pattern of failure. So if you think the purpose of recognition to be intervention and the taking of appropriate action then you will be cautious in making a diagnosis and watchful to give positive assistance.

Let us begin with recognition. The child with the mild learning disability will often identify himself to you in his early days at school if you are perceptive enough to look, if you know what you are looking for, and if you provide the sort of classroom learning situation in which the child's disabilities become evident to you. But if you've a very authoritarian, restricted sort of program where everybody does things according to numbers on a whole-group basis rather than that of individual activity, it is very easy for these symptoms to be overlooked, or for the teacher to assume that it is merely immaturity or slow learning. Perhaps we can look at it in terms of response and behaviour - before the child comes to school. I think many of the symptoms can be picked up then, if you can get information from the parents. We all agree that recognition at the earliest possible stage is mandatory, if we are to prevent established patternsof learning failure.

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Since it is obvious that it will be a long time before we have adequate pre-school provision for our children we can't expect the pre-school people to do it, although many of them do. I was very pleased this morning to hear Dr Hagger mention that a number of physicians do refer children to him, but I think that I and some other

practising teachers here today would wish that more family doctors were aware of these initial symptoms and could alert parents earlier to the possibility of children suffering from some handicap. So perhaps it's a pipe dream to think that the pre-school people will have the facilities to pick it up. But when they enrol children at school, there is certain information the parent could provide. If then we are in a position to get the child's medical history, particularly in the matter of hyperactivity before birth or in infancy, illnesses, childish traumas, particularly if there is a history of accident proneness - and here's the clumsy child beginning to show up; the youngster's nervous tendencies, depressions, anxieties. Has there been occasion to suspect hearing or visual loss, or has he had vision or hearing tests? The parent is the best one to tell the age when the child spoke intelligibly. At what age could he say two words which could be comprehended by somebody other than his mother?

In the matter of memory too, the mother is often in a position to tell if the child is forgetful of names of objects. you can discover if the child can remember his own name and address, which is a developmental task well within the grasp of a four-year-old. Children who can't do this are worth looking at. Find out about handedness; which is the preferred hand? Is there a family history of lefthandedness? Or is there any other family history of disability? And then of course there are things you'd want to know about him - his place in the family, his interests, experiences, eating and sleeping patterns, etc.. This is valuable information for any teacher anxious to see the whole child. Now the intelligent but potentially at risk child can identify himself in the first week at school, if you look at him in connection with several of the symptoms that were spelled out to you on two occasions this morning - but I'll risk boring you by saying some of them again - physically he may be hyperactive, a restless, can't settle, voluble, uninhibited speaker who runs from one activity to another, disrupting other children, often forgetful, apparently unaware of the consequences of his actions, losing toys and books, leaving behind his coat or lunchbox, very often unaware that these objects still exist once he turns his back on them. He could be awkward, clumsy, easily confused, unable to find his classroom or at the door before he realises he has arrived there, often dropping his pencil box and spilling his milk or sandwiches, unable to put on slippers or button his jacket and so on. He may appear to be slightly deaf - you all know the child who takes so long to answer you that you really think he didn't hear you. And he can often be very quiet, not joining in other activities. Again I stress that such symptoms singly or together are not necessarily indicators, predictors of handicap at all because these symptoms are common to many other children. But we keep them in mind so that when we do provide our program, these children aren't going to be guided into failure by being given instructions that they cannot process and follow through. Rather, we give them the sort of direction that can prevent an existing handicap becoming any worse, or can help to repair it. As you know, these children show lack of coordination in tasks like cutting with scissors, bead threading and wool winding and

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particularly when faced with tasks they can't manage or required to move from one activity to another. They are often confused over left and right orientation or suffer from crossed laterality, i.e. right-eyed and left-handed (we will go back to this later). In addition you will occasionally see them with a mild strabismus and some speech irregularity.

Academically the picture of them is just as recognisable to the perceptive teacher in the first weeks at school. At this stage the tasks they are given are within a fairly wide range of ability and a wide variation in levels of performance is expected and accepted. But by the time a child begins to really pose a problem, he has normally been at school about three years. In very many schools, the idea that the youngster will grow out of it, whatever "it" may be, is pretty widely held. So it isn't till about the end of Grade II when the problem arises of transition to the Senior school, with its less flexible teaching techniques and more restricted atmosphere, that the teacher is forced to rethink the problems of adjustment this child is going to suffer. But do we need to wait these three years? At the end of Grade II and in some children, even earlier he is pretty easily identified because in addition to the behaviour characteristics above, he has all sorts of other problems. He is the one who has difficulty in performing a verbal task, i.e. repeating words or sentences, remembering a message, repeating numerals, songs, rhymes etc.. Often he will substitute a similar sounding word for another although the result is nonsense. He may have a poor recall of shape and design, perform badly on puzzles and form-boards. He loses his place on the page and doesn't seem sure just where to read; if he tends to read in the middle of a word or line he guesses wildly in a way quite often unrelated to the context. He reverses words and letters, 'b' for 'd', 'was' for 'saw', 'on' for 'no'. He can't recognise smaller words though often his memory is better for longer ones. He misreads or miscalls words, adding non-existent words or omitting those already there. If he reads aloud there is no sense or rhythm or phrase. His handwriting may be poor, erratically spaced with words and letters omitted and little evidence of ability to copy accurately. He pays little attention to relative letter heights. So you can think of his handicaps being multiple, and you could categorise them 3 ways; visual-perceptual handicaps with difficulties with form differences and spatial relationships; visual-motor coordination - this is cutting, pasting, drawing, writing and manipulating. He confuses figure-ground relationships and has little recognition of whole and part. In Auditory Perception he has poor memory for sounds and he is apparently unable to organise what he hears into meaningful units. This is often the child who appears not to listen and whom we suspect of being hard of hearing. He has no phonic skills at all. He is often unable to differentiate between sounds or distinguish pitch in sound. The child with a sensory perception handicap is one whose ability to perceive differences by feeling is impaired. For example he can't tell shapes from each other when blindfolded. Or if we play the guessing game - you know, when we put an object (visually known to him) in a bag to be felt he fails to

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kicking, - as well as the finer tasks of buttoning, shoe-tying, etc..

So if you recognise him, obviously intervention is the next step. But what can it be? The purpose of it of course is to prevent further development of perceptual impairment and to offer positive remediation for mild cases. For in the main, a very large percentage of cases are mild ones if diagnosed soon enough and the best method of prevention also happens to be the best kind of developmental teaching. I refer to that flexibility of approach that recognizes each modality and adapts instruction accordingly. If we look at the reading process in regard to the three modalities involved, we see visual, auditory and tactile. For children, learning to read means associating sound labels with visual labels.

Today's seminar is called 'Reading Difficulties and the Intelligent Under-Achiever' so I will quickly look at the reading processes in regard to modality, then discuss the various neural pathways and the effect that crossed laterality can have on the acquisition of written language, then conclude with some suggestions for developing word-recognition which can be used both in normal teaching procedures and as specific remediation of perceptual difficulties.

I confess I feel somewhat diffident about preaching on this particular text with Professor Neale sitting in the front row here, but I'm sure she will bear with my inexpert explanation. Learning to read then means associating sound with meaning on a Gestalt or whole-word basis, and on an analytical-synthetical basis too, so with children, look-and-say methods generally develop a crude, phoneme analysis and blending attack skill to use on new and difficult words. Now children taught under mainly phonetic methods can analyse most words, but even these too see several distinct visual units which they recognise at sight because they have learned them as Gestalts. So in the end, in both cases, there is a bank of sight words, plus the skills of analysis. Thus if we think of reading being decoding and encoding, where decoding means turning visual graphemes into auditory phonemes, and encoding signifies turning auditory phonemes into visual graphemes, which is going to involve some rote learning later on because of the irregularity of the English language. When we discuss the role of each of these modalities in language learning, it's going to be necessary to bear in mind that we must know a child's strengths and weaknesses, and teach to his strengths, while not ignoring the weaknesses. We must begin to shore up, or to underpin, these weaknesses, but we must see that success is achieved by teaching through the modality or modalities that are not impaired. The auditorily handicapped child needs just as much help as the visually disadvantaged child. He needs help in learning through his visual strength, as the mainly visile needs help in auditory weakness. These three modalities are the only routes into comprehension, and if a child has a handicap in one, if the pathway so to speak is blocked by an impairment, efforts must be concentrated on the pathways that work. We tailor the teaching to the child's abilities but also build steadily alternative routes to bypass the

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Today's seminar is called 'Reading Difficulties and the Intelligent Under-Achiever' so I will quickly look at the reading processes in regard to modality, then discuss the various neural pathways and the effect that crossed laterality can have on the acquisition of written language, then conclude with some suggestions for developing word-recognition which can be used both in normal teaching procedures and as specific remediation of perceptual difficulties.

I confess I feel somewhat diffident about preaching on this particular text with Professor Neale sitting in the front row here, but I'm sure she will bear with my inexpert explanation. Learning to read then means associating sound with meaning on a Gestalt or whole-word basis, and on an analytical-synthetical basis too, so with children, look-and-say methods generally develop a crude, phoneme analysis and blending attack skill to use on new and difficult words. Now children taught under mainly phonetic methods can analyse most words, but even these too see several distinct visual units which they recognise at sight because they have learned them as Gestalts. So in the end, in both cases, there is a bank of sight words, plus the skills of analysis. Thus if we think of reading being decoding and encoding, where decoding means turning visual graphemes into auditory phonemes, and encoding signifies turning auditory phonemes into visual graphemes, which is going to involve some rote learning later on because of the irregularity of the English language. When we discuss the role of each of these modalities in language learning, it's going to be necessary to bear in mind that we must know a child's strengths and weaknesses, and teach to his strengths, while not ignoring the weaknesses. We must begin to shore up, or to underpin, these weaknesses, but we must see that success is achieved by teaching through the modality or modalities that are not impaired. The auditorily handicapped child needs just as much help as the visually disadvantaged child. He needs help in learning through his visual strength, as the mainly visile needs help in auditory weakness. These three modalities are the only routes into comprehension, and if a child has a handicap in one, if the pathway so to speak is blocked by an impairment, efforts must be concentrated on the pathways that work. We tailor the teaching to the child's abilities but also build steadily alternative routes to bypass the blockage. The child with inadequate auditory or perceptual ability can't differentiate the sounds of the language, can't retain or recall them, or process or sequence them properly, or associate them with previously learned visual or tactual-kinaesthetic clues.

This child can't learn from an initially or predominantly phonetic approach. He must be taught in other ways. The child with a visual handicap can't differentiate word-forms or letter shapes or space and sequence symbols, so he can't learn by a look and say approach. Trying to force him is foolish and criminal in that it virtually programmes a child to automatic failure. A child like this will respond to a mixture of phonics and kinaesthetic, or a multi-sensory method with less work for the impaired sense. Obviously too, if a child has a tactile imperception, kinesthetics will merely compound his frustration. So remediation must be fitted to the specific disability, it cannot afford to be merely a repetition or dilution of general classroom instruction repeating the situations in which the child has already achieved only painful frustration. The task of determining modality i.e. the child's preferred neural pathway is a specialist one. Most normal people have mixed modalities with perhaps one slightly more dominant than another - many people need to write a phone number down before it is memorized - but the perceptually handicapped have one or more modalities impaired. As a very rough generalization it could be said:-

The child who is intelligent but slow to develop auditory discrimination is probably a visile-tactile dominant. The early clear fluent speaker who confuses visual forms is probably an audile-tactile dominant.

We must also consider handedness, for as both Professor Neale and Doctor Hagger have demonstrated the matter of cerebral dominance is important.

There is some disagreement amongst authorities on the significance of crossed laterality in the aetiology of reading retardation but it is at least significant that studies continually reveal a high proportion of left-handed children among reading disability cases of average or superior intelligence. The problems of a left-handed child working in a language based on left to right orientation are certainly aggravated by some perceptual deficit. As a classroom teacher it is my own firm belief that it's possible to establish a child's preferred hand by very simple testing. There is a very good book, "Left-Handedness", published by the Scottish Association for Educational Research, which goes into the question in considerable detail. When children come into the school I normally check with the parent on what is the preferred hand. In addition there are a number of very simple tests which can be carried out to determine the child's footedness and handedness, eyedness and earedness. It's all very valuable information to have, especially if you suspect a handicap. Once the preferred hand is established a definite routine must be carried out to strengthen the associations. To test for handedness, place a small screw-topped bottle with some coloured tablets on a table exactly in front of the child, who has his hands behind his back. Ask him to unscrew the bottle, take out the tablets and arrange them.

Note the hand that he uses, the time taken and the degree of expertise. Have three trials, and if he persist-

programmes a child to automatic failure. A child like this will respond to a mixture of phonics and kinaesthetic, or a multi-sensory method with less work for the impaired sense. Obviously too, if a child has a tactile imperception, kinesthetics will merely compound his frustration. So remediation must be fitted to the specific disability, it cannot afford to be merely a repetition or dilution of general classroom instruction repeating the situations in which the child has already achieved only painful frustration. The task of determining modality i.e. the child's preferred neural pathway is a specialist one. Most normal people have mixed modalities with perhaps one slightly more dominant than another - many people need to write a phone number down before it is memorized - but the perceptually handicapped have one or more modalities impaired. As a very rough generalization it could be said:-

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Note the hand that he uses, the time taken and the degree of expertise. Have three trials, and if he persistently uses one hand, get him to use the other and note the difference in performance. Or you can give him a piece of chalk and ask him to draw a vertical or horizontal line across a blackboard as quickly as possible, see how many lines can be made in twenty seconds. Then give him a turn with the opposite hand and note the difference in skill.

Try allowing him 20 seconds in which to make crosses across the board with first right, then left hands, 20 seconds each. Occasionally you will find children who are using the right hand, but show greater judgement and control withthe left hand. Another test is to have him throw a small object into a chalk box, again commencing with the ball and box directly in front of him.

To test eyedness, take a small lidded cardboard box with a small piece cut off the lid. Make a small hole in the front of the box and draw 4 objects on separate cards. Holding the box in front of you, ask the child to look in and tell what he can see as you drop a card in. Of course you note which eye he uses. Or take a 7 x 8" card, make a ½" diameter hole in the centre. The child holding the card at arm's length directly in front of him is asked to sight a toy you hold up. Note the eye you can see through the hole. That will be the dominant one. A very simple test exists for earedness. The child sits. You stand behind him with box and pencil - exactly behind him - and ask him to turn his head every time he hears you tap the box. He will usually turn the dominant ear to the box.

Footedness may be tested with a small ball of paper. Ask the child to kick the paper through the legs of a chair three or four times; perhaps the last time you could get him to try the other foot. Note the preferred foot and the best performance. Now all this testing has done nothing except to establish dominance, so obviously what do we think about next? Providing the sort of classroom situation in which the perceptually handicapped child will gain experiences that will overcome or modify these difficulties. First of all I think any good classroom program must be based on listening and speaking and moving and making and doing. These skills must develop together for all children. Very many books on the teaching of reading contain good readiness programs. Most good reading series have a Pre-Reading manual. Note the exercises and use them. Generally they involve the use of all modalities. To this can be added further specific training in certain areas. Ideally this provides all-round development for the normal and assists in the establishment of alternative neurological pathways for the perceptually handicapped.

For such children both the learning of whole words and the discrimination of single letter graphemes or their phoneme counterpart present a real problem. The use of tactile stimulation can be very helpful. Very simple things like using the chinagraph pencil to trace around, and colour in, letters under a cellophane or plastic sheet. There is still no substitute for sandpaper alphabets in classrooms, and sandpaper word-forms, for both the normal and the handicapped child. Duplicate large word or letter shapes which the children brush over with paste and then tear up paper and stick it all over the top, confetti will do as well, or sprinkle sand on it. Or he might use golf tees and peg-board are valuable to make designs or letters, in particular, symmetrical patterns,having him copy your design. This is valuable for left-right orientation and for some of the other problems that he is going to have in spatial relationships. And you can buy plastic lower-case letters cheaply at the toy

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With such magnetic alphabets words can be constructed on any metal surface - tray, cabinet or baking dish

This is rather more fun for the child than a blackboard, and if he makes a mistake he can move the letters around to correct it. It is very good for all sorts of language work, especially for discovery that Top can be made into Pot, or that e added at the end turns hat into hate, or cap into cape. Again with this magnetic technique you can see the possibilities for cutting and pasting cardboard objects, pictures and patterns which you can then magnetise. These provide endless opportunities for pattern making, shape matching, design copying and completion, word games and for activities like mapping mentioned by Professor Neale this morning. This is important because if you magnetise regular geometric figures, it's possible to get children - it's a good activity for both the handicapped and non-handicapped - to look at a semi-circle and ask them to imagine what it would look like turned over upside down. Some turn it upside down in their minds, then draw a picture of it. Others who can't imagine it actually do it with these magnetic objects. Children like to use these geometric magnetised figures to make up little men and houses etc. because with regular geometric figures you can do this. Then it is possible to get them to imagine and draw what it would look like if you had a circle on top of a square, and what this would look like, turned upside down. They can check it then by actually making the design. Or make it first, then draw it afterwards. A felt board will provide similar opportunities for work of this type with word, pattern and picture. Such design games provide ideal therapy for children whose impairment causes them to see 'b' and 'd' reversed or 'was' for 'saw'.

Duplicated maze designs which can be traced over plastic sheets with chinagraph pencils are valuable too. Children with very handicapped sense enjoy feeling mazes made of matchsticks glued to a board and using their fingers to trace the pattern. The same medium can be used to make designs which the child traces kinesthetically then copies from memory. Alphabet spaghetti can be glued to dark cardboard to make words and provide an extra activity. Alphabet blocks with large letter shapes, or simple ones made of cigarette packets covered with paper and given a letter lend themselves to practice in discrimination and in word analysis and synthesis. A dressmaker's tracing wheel on firm paper will produce letters raised as in braille that help impress forms of irregular words or confusing ones that can be traced with the finger tips. Remember to run the wheel over the letter written in reverse to get the right impression on the other side. The use of clay, dough or salt-ceramic to roll and form letters and words is a help to some children. So is the provision of finger paint both to write rhythmic patterns - a help to the hesitant and to copy words as often as needed. Potato prints or rubber stamps give very good opportunities for copying patterns in linear or symmetrical design especially if you trace a regular figure - circle, rectangle, triangle for the child to fill with his design or to stamp around the perimeter.

Similarly figure-ground difficulties can be assisted by providing a figure within a shape, both coloured differently and the child colours either the inner or the outer design i.e. a circle within a square or a triangle within a square. Design copying from toy building bricks is excellent as is the reproduction in three dimensions with

possibilities for cutting and pasting cardboard objects, pictures and patterns which you can then magnetise. These provide endless opportunities for pattern making, shape matching, design copying and completion, word games and for activities like mapping mentioned by Professor Neale this morning. This is important because if you magnetise regular geometric figures, it's possible to get children - it's a good activity for both the handicapped and non-handicapped - to look at a semi-circle and ask them to imagine what it would look like turned over upside down. Some turn it upside down in their minds, then draw a picture of it. Others who can't imagine it actually do it with these magnetic objects. Children like to use these geometric magnetised figures to make up little men and houses etc. because with regular geometric figures you can do this. Then it is possible to get them to imagine and draw what it would look like if you had a circle on top of a square, and what this would look like, turned upside down. They can check it then by actually making the design. Or make it first, then draw it afterwards. A felt board will provide similar opportunities for work of this type with word, pattern and picture. Such design games provide ideal therapy for children whose impairment causes them to see 'b' and 'd' reversed or 'was' for 'saw'.

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Word-shapes i.e. 'landscapes' such as appear in most pre-readers can be made with matches glued to a board for tracing and the landscape shapes for basic words in the first reader should be available for all children.

Finally, we must continually be aware that children learn through all their senses. Normal children involve all their senses, using auditory, visual, tactile too. So a good class room provides a multiplicity of experiences; and within the framework of a beginning reading program that utilises a child's own interests, uses the resources of the environment. Don't forget the potential that a tape-recorder possesses. Some children need to hear the page read aloud before they can tackle it visually. Give him the chance, on tape. With a classroom like this the perceptually handicapped child has an opportunity to use all his modalities and therefore the handicapped sense has more opportunity to be developed or to have an alternate pathway developed for it. Thus the child is not forced to learn under a rigid system which by providing limited sense stimuli almost guarantees failure, and not the success that ought to be the reward of every child, whether specifically handicapped or not.

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Q. Much has been said about the importance of making a descriptive diagnosis of the pupil's particular strengths and weaknesses.

1. How can a teacher be sure to achieve a remedial program best suited to remedy a particular weakness? 2. Is it not possible that a disability that is common to several different children may be the result of different causes in each case?

A. It rather looks as though there are two questions there - one on diagnosis and one on certainty.

I think that nothing is sure in this life except that you can make an informed or educated guess in the light of your own familiarity with the child's behaviour and then prescribe in view of the available material. It is up to each teacher to know what is available in the field. There are specific programs that you can buy for the handicapped. There are books on the management of these children and there is also inter-colleague discussion both on your own staff and at the professional association level. As far as 100% sureness is concerned this can't be done but you can get enough background information on the child to enable you to make a further decision that is more likely to be right.

Concerning a disability that might be common to several children, this is quite true. If you think of a disability as merely an inability to recognise a word at sight, this can be common to several children for several reasons. There is the emotionally disturbed child who can't recognise a word because he doesn't want to, perhaps because he's too tense or tight inside for one reason or another. There is the visually - not perceptually, but visually - impaired child, who can't recognise the word because he can't focus it; his eyes are imperfect. You can have the slow learning child who can't recognise the word because he yet hasn't developed word attack skills, he is suffering from maturational lag. And then you can have the

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or putting together might work, whereas another child might learn better by hearing the word as repeated by other people, drawing it, making it in some other way. The slow learner might just not be ready to learn to read at all and may need a lot more oral experiences and activities to develop discrimination. So if you become familiar with what is available, think about it and think creatively. How many other ways can you use such materials. Take the opportunity when you can of seeing other people using different approaches, this builds up your own store of information and makes it more likely that you'll make a right guess diagnosis and the correct prescription but it certainly wouldn't guarantee that you would be sure.

SOME ASPECTS OF IMPORTANCE TO CLASS TEACHERS IN AN ATTEMPT TO PROVIDE REMEDIATION PROGRAMMES FOR RETARDED READERS.

J.P. Phillips.

In many ways it seems somewhat incongrous for Panel members concerned with an examination of remedial techniques to speak at length of the scope of the problem, of the psychological effects of learning difficulties on the individual and his social contacts, of the complexity of symptoms etc. when these aspects seem self evident facts, particularly to an audience which so clearly shows its awareness and an interest by attendance here today. The problem for us as teachers would seem to be more appropriately related to the responsibility we have, as teachers, to teach our pupils. A responsibility which would seem to involve the necessary knowledge, skills and techniques which would enable us to efficiently diagnose children's difficulties and to plan and implement instructional programmes appropriate to the remediation of the disclosed needs of these pupils. And yet the success of any programme in great part is contingent upon teacher awareness of the complexity of problems commonly associated with children in need of remediation assistance. Faced with the incidence of Retardation which involves a such significant proportion of children, it is essential that teacher awareness be generalised to the degree, where, as Miss Ridsdale emphasised in examining the early school attender, early recognition, early diagnosis, and early treatment be part and parcel of the instructional programmes functioning in every classroom; so that the effect of failure be minimised; to ensure that every child, irrespective of his age or grade, receive appropriate treatment, ideally within his own peer group and at the hands of his own class teacher. Unfortunately, so much of teacher awareness remains at a surface level when quite clearly the demands calls for much more, for sophisticated awareness which best finds expression in effective programmes. This sophisticated awareness or teacher sensitivity might be said to involve among other things -

1. An appreciation of the maturational aspects of child behaviour.
2. Knowledge and understanding of the Reading Process and its complexities.
3. Comprehensive knowledge of method of teaching.
4. Insight into the inter-relationship of SPECIFIC NEEDS, SPECIFIC METHODS, SPECIFIC MATERIALS and their use.

concerned with an examination of remedial techniques to speak at length of the scope of the problem, of the psychological effects of learning difficulties on the individual and his social contacts, of the complexity of symptoms etc. when these aspects seem self evident facts, particularly to an audience which so clearly shows its awareness and an interest by attendance here today. The problem for us as teachers would seem to be more appropriately related to the responsibility we have, as teachers, to teach our pupils. A responsibility which would seem to involve the necessary knowledge, skills and techniques which would enable us to efficiently diagnose children's difficulties and to plan and implement instructional programmes appropriate to the remediation of the disclosed needs of these pupils. And yet the success of any programme in great part is contingent upon teacher awareness of the complexity of problems commonly associated with children in need of remediation assistance. Faced with the incidence of Retardation which involves a such significant proportion of children, it is essential that teacher awareness be generalised to the degree, where, as Miss Ridsdale emphasised in examining the early school attender, early recognition, early diagnosis, and early treatment be part and parcel of the instructional programmes functioning in every classroom; so that the effect of failure be minimised; to ensure that every child, irrespective of his age or grade, receive appropriate treatment, ideally within his own peer group and at the hands of his own class teacher. Unfortunately, so much of teacher awareness remains at a surface level when quite clearly the demands calls for much more, for sophisticated awareness which best finds expression in effective programmes. This sophisticated awareness or teacher sensitivity might be said to involve among other things -

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The judicious blend of these important factors requires of the teacher imagination and initiative for seldom is the problem a simple one.

Both speakers have stressed the importance of looking at the total child and yet, for the teacher, the first step to treatment is in the problem of the identification of the child in the classroom situation. It is only as the teacher works with the child that he or she can "fill in" these often difficult but very important areas of information.

Given the problem of a relatively large class, the not infrequent interruptions to a teacher's day to day programme and the ever present problem of availability of time, how can one best go about this problem of early identification.

We have all encountered children who for a variety of reasons have occasioned us concern or anxiety which cannot always be verbalised because of their levels of functioning in the classroom situation. This relatively unsophisticated concern, which frequently is based on subjective analysis, on experience and observation of the total child in the total class environment, is in fact a most important step in identification. One can examine broad definitions of retardation which might involve even the most gifted child who appears on the surface to have no problems, to be functioning at a level significantly above that of his peers, but it seems to be that for our purposes this afternoon a child becomes a remedial problem when he cannot participate profitably in the classroom learning activities which involve reading material pitched to the level of that class. Unfortunately many teachers feel inadequate in proceeding further with more than this surface identification - most can tell us what Tom doesn't know, but what Tom does know is perhaps of greater significance in planning programs for him. There are many children who remain labelled as having difficulties for whom little further has been done. There is too an inherent danger in labelling of itself. Research would suggest that teachers' attitudes towards a labelled child are frequently associated with a lowering of teacher expectation of that child and perhaps some degree of rationalisation in the programmes designed for him. Many of their problems remain unsolved.

Why is this so?

The answer to this seemingly simple question lies in a complexity of factors.

THE PROBLEM OF DIAGNOSIS

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THE PROBLEM OF DIAGNOSIS

Fundamental to the diagnosis of reading difficulties is an understanding of the complexity of the reading process and the necessary basic skills essential to the pupil's successful assimilation and utilization of what he sees on the printed page. Diagnosis in a sense parallels the reading process from intake to output. It is concerned with as comprehensive and detailed a description as possible of the reading skills development and difficulties of groups and more

particularly with individuals within groups, in perceiving, relating and expressing what they perceive. A class teachers difficulty lies in the opportunities for use, in the selection of appropriate tools of diagnosis and in his ability to comprehend the data he has collected. Additionally, he must seek out the strengths outside the reading area, which may be the basis for the development of confidence and self image in his pupil. The problem is simplified in part by recognition of the fact that not all pupils in any particular grade with average spread of abilities should require detailed investigation or diagnosis. It is apparent that some form of screening device will need to be employed to identify that individual pupil or cluster of pupils who will require intensive diagnosis. I would stress that, irrespective of what form of group screen test you may employ, the starting point is a detailed examination and understanding of the administrative procedures laid down by the test designers in the Manual and employed by them in the standardisation procedures. In the selection of the test itself, one must take cognisance of the range and suitability of the test, that aspect of reading one wishes to examine and the availability of the test for teachers. At the present time in Victoria there are difficulties in each of these areas.

Information gleaned by group testing may be used to portray a grade profile of spread of pupil attainment and with caution, as a basis for placement of children in sequential reading programmes. At the same time the information will focus attention on those lower level performers whose skills development is such that their performances vary significantly from those of their peers and warrant further investigation. Once identified and bearing in mind that children need to experience success, to unlock or decode unknown or unfamilar words and to comprehend what they read, I would suggest that this further investigation should focus attention on Sight Vocabulary, ...that pool of words of which the child has ready recognition, Word Analysis skills, and Comprehension. which may be regarded as the Basic Mechanical skills of reading. The teacher needs to sample and understand the childs strengths and weaknesses in each of these areas if programmes are to be designed. Unfortunately no one test per se will give us this sort of information. Daniels and Diack, Schonell and others have attempted to solve this dilemma by means of batteries of tests which individually sample the child's skills and collectively enable a

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What is the value of this reading Profile.

The justification for testing of any kind lies not in the test itself but in the use to which it can be put in casting light on the nature of the presenting problems and in the use the teacher can make in planning effective efficient programmes of instruction. It is not sufficient to gain this information in isolation. Of significance is the balance of development of the child's reading skills. Any inbalance, gross deficiency or total reliance on a single area be it sight vocabularly, or word attack skills, to the neglect of the development of the other related areas, means that the reader is limited in what he can achieve independently, and poses problems in the selection of reading material and the methods the teacher might employ in assisting him. It is frequently one of the most frustrating influences limiting the help that can be given in the classroom situation and that attempted by well intentioned but educationally inept parents in the home environment. It is unfortunate that past experiences so often have such an adverse effect on the child's attitudes which he brings to the remediation programme.

The Nature of the Reading Programme:

There is little justification for remedial reading activities if they are not controlled by a methodology essentially different from that of other reading instruction which has not resulted in success. Obviously a remedial reader is a retarded reader and he must acquire skills faster than he may have been required to in a first learning situation. If he is to learn at a faster rate, the teacher must have familiarity and expertise with successive stages of reading skills development, but he must plan his program to increase the momentum as the child acquires elementary reading skills and insight into the reading process. Unfortunately there is often pressure from the school and home to accelerate the program too quickly. There must be many enriching classroom experiences which may need to be temporarily sacrificed or modified if he is to receive some measure of remedial assistance and certainly the total skills programme of the primary readers must be telescoped and concentrated into a relatively brief period of instruction - which has even greater significance when one considers the commonly occurring short span of attention found in many children with learning difficulties.

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To date I have looked at areas of greater significance for the teacher than for the child, and again, were not use to be made of the information derived in terms of the total child, then the effectiveness of the programme would be diminished significantly. Any attempted program must take into account the child's interest, his language development and those factors likely to increase motivation and sustain interest.

Irrespective of variations in interest of language development and motivation however, the programme must be based on three fundamental areas. Control of Vocabulary, Consolidation of functional abstract vocabulary and a developmental program of word attack skills embodying comprehension activities.

If we can examine a hypothetical case Tom X drawn from any school. Tom could well be a boy of 11-12 years of age ascertained on preliminary screen testing to be some three to four years retarded. Invariably he will express a disinterest in reading, have a poor attitude to reading and not infrequently pose disciplinary problems for his teacher and have a poor attitude to school. Frequently specific diagnosis will reveal limited sight vocabulary complicated by frequent attempts to guess at words (generally unsuccessfully) when they appear out of context; he will make substitutions, reversals and show little evidence of a generalised means of word attack skills with an inability to comprehend even simple reading passages consistently. Treatment then is a threefold approach. On the one hand to achieve the necessary development of vocabulary, use must be made of BASAL vocabulary lists such as Key Words of Literacy (Murray & McNally), Dolch etc., together with lists that accompany controlled vocabulary schemes. Having regard to Tom's age and probable interests, it will be necessary to select carefully the material that will be utilised. Series such as The Deep Sea Adventure Series, Morgan Bay will have far greater relevance than those with more juvenile content. On the other hand, his own oral and written vocabulary must be enriched through thematic centres of interest which may incorporate language experience books - The Hot Rod - How A Motor Mower Works - Caring for A Car etc. Parallel to these two, a systematic programme of word attack skills must be initiated and developed. The problem is made more difficult by the seemingly infantile type of programme too frequently used...Phonics must be taught but the pill must be coated with sugar. Consolidat[illegible] drill coupled with regular reviews must be essential elements of the programme. The challenge to the teacher and his responsibility is to provide the variety of interesting material and variations in technique if Tom is to succeed.

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Poll Parrots Prank is not for Tom rather The Kidnapping at Moon Creek or Jim Sands and the Bandit which parallel phonic complexity but differ widely in motivation and interest. His programme will need to progressively develop synthesis of elements into comprehensive wholes and, as sound blending becomes impractical for words of more than one syllable, it must be supplemented by techniques which draw his attention to the nature of syllabic and polsyllabic words which will enable him to develop menaingful insight into the nature of word parts and their wholes.

It is generally agreed that he should learn to compound words, to use prefixes and suffixes and inflexional endings until they become part of his generalised word attack skills. At every stage, consolidation is a vital step towards complete mastery. I have attempted to examine the probeln from the point of view of the class teacher. One should not forget the outside agencies that are available and should be employed when it is clear that the problen is beyond the resources of the school. Of the necessary role of the psychologist and social worker and other specialists which collectively make possible the team approach. Finally Remedial Reading instruction should have a positive result evident in reading improvement and significantly in the child's attitudes towards reading and towards himself. The latter is more pervasive if attitudes are successively modified. Progress is more likely to be continued after special instruction is discontinued.

Teaching children who require remedial assistance can become a most rewarding work. The teacher who sees personality changes and a developing independence in his pupils as a result of his efforts will never forget the experience..... It is a humbling and wonderful adventure.

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Q. There are teachers here today who recognise this problen. What is the recipe for cure?

A. Looking at the word recipe, I suppose one can take the analogy of home cooking further. The ingredients are there; it is in the hands of the cook how it turns out. This is important, because even today, in the display of material which is available, in the room outside this hall, there are excellent means and guides to programmes, and this is true for teachers in general. It is the teachers responsibility to seek these out. I'm concerned with the rigidity of thinking underlying this sort of question - that there is a single means of tackling a problen of this sort. I think the important part for a teacher is the variety, imagination and initiative that he can develop , because intrinsic to any program is the interrelationship of personality between the teacher and the child which not infrequently sparks off the steps by which you will proceed with the child. We as a panel were aware that this form of question might be asked. We were somewhat disappointed that we had twenty minutes to outline points which, as I said earlier, are probably self-evident, and it is hoped that through the auspices of the IRA, programmes specifically related to method will be undertaken at some near date

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